



GASTROINTESTINAL SYSTEM

www.kdhe.state.ks.us/c-f/special_needs_part2.html



**1000 SW Jackson, Suite 220
Topeka, KS 66612-1274
785.296.1300 785.296.4166 (fax)**

www.kdhe.state.ks.us/c-f/special_needs_part2.html

GASTROINTESTINAL SYSTEM ¹

STRUCTURE AND FUNCTION

The gastrointestinal system breaks down food into basic nutrients that can feed the cells of the body. Functionally, the gastrointestinal tract is divided into two parts: upper and lower.

The upper gastrointestinal tract is where digestion and absorption of most of the nutrients occur. The mouth, throat, esophagus, stomach, and small intestine are components of this part of the digestive tract.

The *mouth* is where processing of food starts. Chewing is important because digestion is more effective with smaller particles. The food is swallowed and passes through the throat, then through the esophagus.

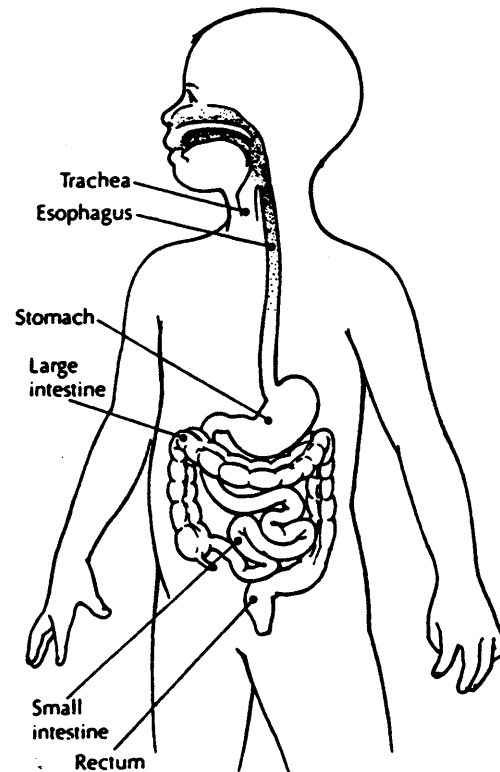
The *esophagus* is a straight tube approximately 10 inches in length in an adult. It extends from the base of the throat behind the trachea to the stomach.

The *stomach* is a curved, pouch-like organ that is located under the diaphragm in the upper left portion of the abdomen. The stomach partially digests food and regulates passage of food into the intestine.

The *small intestine* is approximately 12 feet long in an adult. The duodenum, jejunum, and ileum are parts of the small intestine. Food passes from the stomach through the small intestine, where most digestion and absorption of nutrients take place.

The lower gastrointestinal tract consists of the *large intestine*, where water is reabsorbed and undigested food is consolidated into fecal waste.

The large intestine extends from the end of the small intestine to the *rectum*. The *anus* is the opening to the outside of the body.



FUNCTION

Digestion takes place in two ways:

- **Mechanical:** Chewing and stomach contractions break down food.
- **Chemical:** Food is broken down by digestive acids and enzymes.

The digested food is absorbed through the lining of the intestine and then enters the bloodstream, where it is carried to the cells and tissues throughout the body. ²

Oral Hygiene

I. Purpose

Oral hygiene consists of brushing and flossing the teeth. The purpose of oral hygiene is the prevention of cavities and periodontal (or gum) disease by removal of food and plaque from the teeth. Cavities result from a breakdown of enamel and the dentin of the teeth. Bacteria developing from food debris use the sugar in the mouth to produce plaque, which adheres to the tooth enamel. Plaque, or these bacterial deposits, continues to use sugars to produce acids that breakdown the enamel and the dentin, eventually allowing bacteria to invade and decay the tooth.

II. Suggested Settings

If at all possible, oral hygiene should be accomplished in the bathroom in front of a sink with both the teacher and student looking in the mirror.

III. Suggested Personnel and Training

Oral hygiene may be administered by the school nurse, lawful custodian, teacher aide, or other staff person who has had general training in the oral hygiene of the student. General training should cover the student's specific health care needs, potential problem, and how to obtain assistance should problems occur.

IV. Individualized Health Care Plan: Issues for Special Consideration

Each student's Individualized Health Care Plan must be tailored to the individual student's needs. The following section covers the procedure for oral hygiene and possible problems and emergencies that may arise. It is essential to review the procedure before writing the Individualized Health Care Plan.

A sample Individualized Health Care Plan and Anticipated Health Crisis Plan are found in Appendix A. These may be copied and used to develop a plan for each student. For a student who requires oral hygiene, the following items should receive particular attention:

- Position of the student while accomplishing oral hygiene.
- Typical problems with oral hygiene, such as aspiration or oral defensiveness.
- The student's ability to assist with or perform oral hygiene.
- Condition of the teeth, tongue, and gums; the positioning of the teeth and jaw; and structure of the oral cavity (e.g., high arched palate, large tongue in proportion to mouth, etc.).
- Latex allergy alert
- Universal precautions

V. Possible Problems that Require Immediate Attention

Observations

Reason/Action

Color changes/breathing difficulty during oral hygiene

Stop oral hygiene immediately. This may be due to aspiration of fluid into lungs.

Respiratory distress continues

Call for help and initiate emergency plan.

³

Oral Hygiene

Procedure

Points to Remember

1. Wash hands and put on gloves. *See Appendix B, Universal Precautions*
2. Assemble equipment:
 - Toothbrush
 - Toothpaste
 - Water
 - Cup or Syringe
 - Emesis basin (or other receptacle for fluid removed from the mouth)
 - Towel
 - Dental Floss
3. Explain the procedure to the student at his/her level of understanding. Encourage the student to participate as much as possible. *By encouraging the student to assist in the procedure, the care-giver is helping the student achieve maximum self-care skills.*
4. Position the student and place towel on his/her chest.
 - If the student is unable to sit:*
 - Place the student on his/her back or turned onto his/her side with the student's face along the edge of a pillow under the chin.
 - If the student is able to sit, the following positions are suggested:*
 - The student can sit on the floor while an adult sits behind him or her on a chair with the student's head straddled by the adult's thighs. The adult can reach around with one hand supporting the student's chin if necessary and brush the teeth with the other hand.
 - With the student sitting in the wheelchair, the adult can stand or sit behind the student and reach with one hand supporting the student's chin, if necessary, and opening the student's mouth. The teeth can then be brushed using the other hand.

5. Brush the student's teeth using the following procedure:
 - Place the head of the toothbrush beside the teeth, with the bristle tips at a 45 degree angle against the gum line.
 - Move the brush back and forth in short (half-a-tooth-wide) strokes several times, using a gentle "scrubbing motion."
 - Brush the outer surfaces of each tooth, upper and lower, keeping the bristled angled against the gum line.
 - Use the same method on the inside surfaces of all the teeth, still using short back-and-forth strokes.
 - Scrub the chewing surfaces of the teeth.
 - To clean the inside surfaces of the front teeth, tilt the brush vertically and make several gentle up-and-down strokes with the toe (the front part) of the brush.
 - Brush the tongue.
6. During oral hygiene, make careful observations of the student's teeth, gums, tongue, and lips.
7. Rinse toothbrush thoroughly in cold water and place in a clean area to dry. Discard toothbrush when bristles become frayed or bent.
8. Wash and dry the student's cup and basin thoroughly and store in a clean area.
9. Wash hands.
10. Document procedure.

This procedure has been suggested by the American Dental Association. Brushing and flossing prevent cavities by the removal of food debris and plaque from the teeth.

Report any abnormal appearance of the teeth, gums, lips, or tongue to the school nurse and lawful custodian and/or caregivers.

Oral Feeding

I. Purpose

The purpose of oral feeding is to provide nutrients to the student who is unable to eat without assistance. Assistance may include feeding the student who is working on self-feeding skills, or supporting the student with neuromuscular impairments to maintain a safe posture and position for feeding.

II. Suggested Settings

The atmosphere of the room should be calm and organized to facilitate the student's ability or willingness to eat. Students should be encouraged to socialize at mealtimes. Some students are highly distracted at mealtimes and may need to be positioned to avoid facing the entire class. Wheelchairs and special equipment should be accessible to cafeteria tables.

III. Suggested Personnel and Training

Oral feeding may be administered by the school nurse, occupational therapist, speech pathologist, lawful custodian, teacher aide, or other staff person who has had general training in the oral feeding of the student and the Heimlich Maneuver. General training should cover the student's specific health care needs, potential problems, and how to obtain assistance should problems occur.

IV. Individualized Health Care Plan: Issues for Special Consideration

Each student's Individualized Health Care Plan must be tailored to the individual student's needs. The following section covers the procedure for oral feeding and possible problems and emergencies that may arise. It is essential to review the procedure before writing the Individualized Health Care Plan.

A sample Individualized Health Care Plan and Anticipated Health Crisis Plan are found in Appendix A. These may be copied and used to develop a plan for each student. For a student who requires support/assistance with oral feeding, the following items should receive particular attention:

- Feeding goals for the student
- Appropriate feeding utensils for the student
- Appropriate positioning for the student at mealtimes
- Student's muscle tone
- Strength of student's bite reflex
- Whether student is a mouth breather
- Texture of food for student to consume
- Recommended food preferences
- Timing of the feeding (student should have chest physiotherapy and/or

- suctioning prior to feeding, if indicated).
- Latex allergy alert
- Universal precautions

V. Possible Problems that Require Immediate Attention

Observations

Color changes/breathing difficulty during feeding

Respiratory distress continues

Vomiting

Choking

Reason/Action

Stop feeding immediately. This may be due to aspiration of food into trachea and/or lungs.

Call for help and initiate emergency plan.

Stop feeding and refer to student-specific guidelines.

Heimlich Maneuver

Oral Feeding

Procedure

Points to Remember

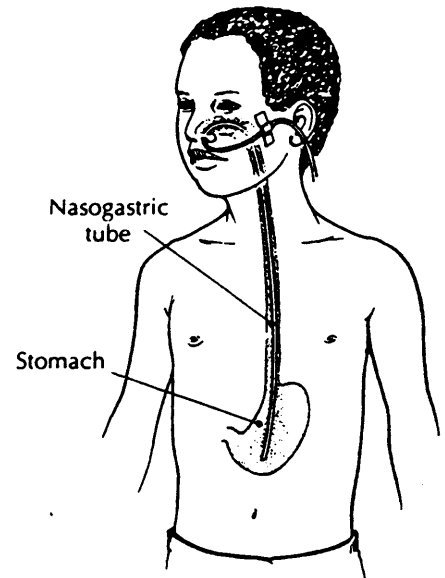
- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Wash hands. 2. Gather equipment. 3. Provide head, trunk, and foot support. 4. Wash student's hands and face. 5. Place a towel on the student's chest. 6. If student is unable to feed his/herself: <ul style="list-style-type: none"> • Feed the student slowly with a small amount of food on the spoon alternating sides of the mouth. • Check to see if the student needs assistance with opening his/her mouth, chewing, swallowing, or controlling tongue thrust. • Control the jaw as needed during feeding. | <p><i>Keep the head slightly forward. A hyper-extended neck prevents proper swallowing and may lead to choking. Discuss alternative positions with OT, PT, or speech therapist who works with the student.</i></p> <p><i>Especially important if the student will be assisting with his/her feeding.</i></p> <p><i>To protect the student's clothing.</i></p> <p><i>Speed and impatience create frustration. Wipe drips from the bottom of the spoon. Allow the student to perform as much self-feeding as possible.</i></p> <p><i>Observe the student's feeding behavior. To encourage chewing, close the student's mouth and gently press back on the chin while firmly rubbing the cheeks in a rotating motion. Also check with the Occupational Therapist or Speech Therapist who works with student for individualized variations in strategies.</i></p> <p><i>To encourage swallowing, stroke the neck in an upward motion gently under the chin. To decrease tongue thrust, place food in the center of the tongue and press gently on the tongue with the bowl of the spoon.</i></p> <p><i>Manual control of the jaw helps the student with oral control, minimizes loss of food, and therefore helps assure adequate nutrition. Control the jaw by stabilizing and cradling the head and jaw with one hand while feeding the student with the opposite hand.</i></p> |
|--|---|

- | | | |
|-----|--|--|
| 7. | If the student is able to finger feed: | <p><i>The student must have the ability to:</i></p> <ul style="list-style-type: none"> • <i>pick up objects with his/her fingers</i> • <i>move the hands to the mouth</i> • <i>chew and swallow</i> <p><i>Guide student's hand to mouth if necessary.</i></p> <p><i>Guide hand between food and mouth if necessary.</i></p> |
| | <ul style="list-style-type: none"> • Dip student's fingers in a desirable food. • Place small amount of finger food in front of student. | |
| 8. | If student is able to self-feed him/herself with a spoon: | <p><i>The student must have:</i></p> <ul style="list-style-type: none"> • <i>the ability to grasp adapted utensil.</i> • <i>good hand-to-mouth motion.</i> • <i>good mouth and lip control.</i> |
| | <ul style="list-style-type: none"> • Food should be of thick consistency to stay on the spoon. • Assist student as needed to scoop the food and bring it to his/her mouth. • Gradually decrease assistance. | <p><i>Encourage proper grasp of the spoon. Ignore mistakes and messiness.</i></p> <p><i>Watch for positive behaviors you can reinforce.</i></p> |
| 9. | Offer the student liquids throughout the meal. | <p><i>Use a lightweight, sturdy cup with lid, a drinking straw or tube offered at the side of his mouth, or other adaptive device to assist drinking. If needed, guide the student's hand as he brings a cup to his mouth.</i></p> |
| 10. | Praise and encourage the student's efforts. | <p><i>Be lavish. Watch for positive behaviors that you can reinforce.</i></p> |
| 11. | Remove uneaten food from the student's table. Measure it if required. | <p><i>Discard in an appropriate container. Follow school policy guidelines for universal precautions.</i></p> |
| 12. | Wash student's hands and face, provide oral hygiene, and remove towel. | |
| 13. | Document feeding the student on his health record or treatment log. 4 | |

NASOGASTRIC TUBE

PURPOSE

A nasogastric tube (NG-tube) is a rubber or plastic tube that passes through a nostril, down into the throat and esophagus (i.e., food pipe), and into the stomach. It is used to give liquids, medication, and feedings when a person is unable to take these by mouth. Some students will have a tube inserted for each feeding. Others will have a tube in place for several weeks.



SUGGESTED SETTINGS

The student may be fed in the lunchroom with the other students or in the health room. The NG-tube should be inserted in the health room or in another private setting.

SUGGESTED PERSONNEL AND TRAINING

A health assessment must be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

A registered nurse with proven competency-based training in appropriate techniques and problem management should do the nasogastric tube feedings. Any school personnel who have regular contact with a student with an NG-tube must receive general training that covers the student's specific health care needs, potential problems, and how to implement an established emergency plan.

The basic skills checklist (pp. 20-21, 24-26) can be used as a foundation for competency-based training in appropriate techniques. It outlines specific procedures step by step. Once the procedures have been mastered, the completed checklist serves as documentation of training.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's IHCP must be tailored to the individual's needs. The following section covers the procedure for NG-tube care and possible problems and emergencies that may arise. It is essential to review it before writing the IHCP.

A sample plan is included in this manual. It may be copied and used to develop a plan for each student. For a student with an NG-tube, the following items should receive particular attention:

- Size and type of feeding device
- Type of feeding student is receiving (e.g., bolus/continuous drip)
- Proper placement of the NG-tube
- Method of securing the NG-tube
- Activity level after feeding
- Positioning during and after feeding
- Determining the need to measure gastric residuals
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)

Possible Problems that Require Immediate Attention

Observations

Gagging, choking

Reason/Action

This may be due to improper NG-tube placement.

Follow steps for checking NG-tube placement.

If NG-tube is not in proper position, remove tube or follow student-specific guidelines for repositioning.

Color changes/breathing difficulty *when not receiving feeding*

Color changes or breathing difficulty are not always related to NG-tube feeding. In addition to checking NG-tube placement, it is important to carefully assess the student for other problems.

Color changes/breathing difficulty *while receiving feeding*

STOP FEEDING IMMEDIATELY. *This may be due to improper NG-tube placement. Follow steps for checking NG-tube placement. Carefully assess the student for other problems.*

This may be due to aspiration of feeding into lungs.

Respiratory distress continues

Call for help and initiate emergency plan.

Nausea and/or cramping

Check rate of feeding—rate may need to be decreased. Check temperature—feeding may be too cold: stop feeding, let feeding get to room temperature, then administer. If problem continues, notify school nurse and family.

Vomiting

Stop feeding and refer to student-specific guidelines.

Vomiting may not be due to NG feeding. It is important to carefully assess the student for other problems.

NG-tube falls out

Notify family, school nurse, and physician.

General Information Sheet

Students with Nasogastric Tubes

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires a nasogastric tube (NG-tube). This is a simple and safe way of giving food, medicines, and fluids directly into the stomach because the student is unable to take these by mouth. The NG-tube is a soft rubber or plastic tube that is put into a nostril and down the food pipe into the stomach.

The tube is held to the skin by tape, so it will not usually come out, and is clamped between feedings to prevent leakage. Once it is in place, the NG-tube should not cause the student any discomfort. The student may receive feedings or medication through the NG-tube as needed during the schoolday in the health office, the lunchroom, or the classroom. Usually he or she will be able to participate in physical education or other activities. Special consideration may be needed, however, for field trips or other activities during which the student may not be able to receive a regularly scheduled feeding.

The following staff members have been trained to deal with any problems that may arise with this student:

For more information about NG-tubes or the student's needs, consult the school nurse or family.

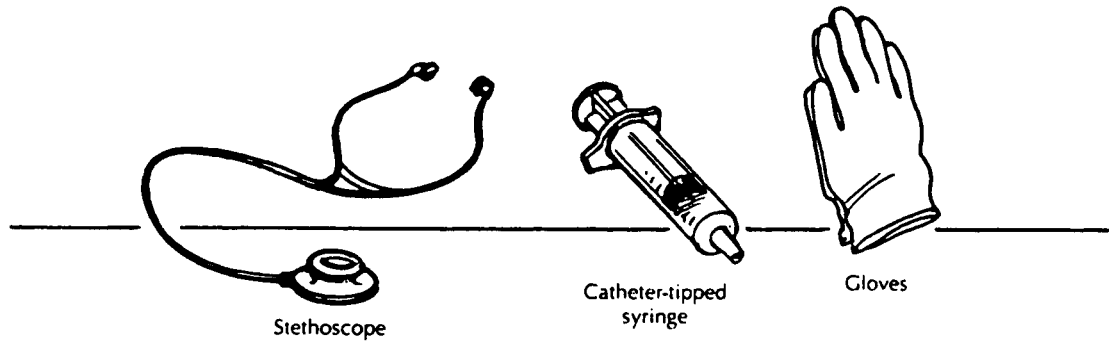
PROCEDURE FOR CHECKING PLACEMENT OF THE NASOGASTRIC TUBE

PROCEDURE

1. Wash hands.
2. Assemble equipment:

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

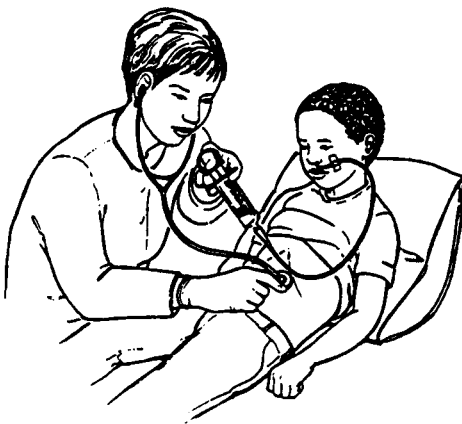


- Stethoscope
 - 60-cc catheter-tipped syringe
 - Gloves (optional)
3. Explain procedure at the student's level of understanding.
 4. Position student.
 5. Wash hands and put on gloves.
 6. Unclamp or remove cap from NG-tube.
 7. Connect 60-cc catheter-tipped syringe to the end of NG-tube.
 8. Place a stethoscope over the mid-left abdomen and gently push in 5–10 cc of air with syringe.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

A whooshing sound should be heard if NG-tube is placed properly.

If NG-tubing does not appear to be in place, do not give feeding. Replacement or repositioning of the NG-tube should only be done by a nurse with appropriate training and if ordered by the student's physician. (Check student-specific guidelines.)



9. If ordered, gently draw back on the plunger to remove any liquid or medication that may be left in the stomach (i.e., residuals).
 10. Close the tubing, disconnect the syringe, and remove plunger from syringe.
 11. Proceed with feeding by method prescribed for student.
- Refer to physician's orders. Note the amount that was withdrawn from the feeding tube and return the contents to the stomach (if ordered). Adjust the feeding volume according to physician's orders if a residual is present. If the residual is greater than recommended, hold feeding, wait 30–45 minutes, and check again. Some students may not need to have residuals checked.*
- Feedings are usually bolus (feeding given over a short period of time by gravity) or slow drip (feeding given by pump or over a long period of time by gravity). s*

Inserting Nasogastric Tube (Never Delegate)

Procedure	Points to Remember										
1. Wash hands.											
2. Assemble equipment:											
<ul style="list-style-type: none"> • Appropriate size nasogastric tube (as ordered by physician) • 1/2 inch hypoallergenic tape • 5 ml syringe or catheter tip syringe • Stethoscope • Water soluble lubricant • Non-sterile gloves 	<p><i>*Guidelines for selection of nasogastric tube:</i></p> <table> <tr> <th><i>Student's weight</i></th><th><i>N/G Size</i></th></tr> <tr> <td><i>10-20 kg</i></td><td><i>10F</i></td></tr> <tr> <td><i>20-30 kg</i></td><td><i>12F</i></td></tr> <tr> <td><i>30-50 kg</i></td><td><i>14F</i></td></tr> <tr> <td><i>50+ kg</i></td><td><i>16F</i></td></tr> </table>	<i>Student's weight</i>	<i>N/G Size</i>	<i>10-20 kg</i>	<i>10F</i>	<i>20-30 kg</i>	<i>12F</i>	<i>30-50 kg</i>	<i>14F</i>	<i>50+ kg</i>	<i>16F</i>
<i>Student's weight</i>	<i>N/G Size</i>										
<i>10-20 kg</i>	<i>10F</i>										
<i>20-30 kg</i>	<i>12F</i>										
<i>30-50 kg</i>	<i>14F</i>										
<i>50+ kg</i>	<i>16F</i>										
3. Explain the procedure to the student at his/her level of understanding. Encourage the student to participate as much as possible.	By encouraging the student to assist in the procedure, the care-giver is helping the student achieve maximum self-care skills.										
4. Position the student.	Place student in sitting position.										
5. Put on gloves.											
6. Measure the tube for the correct insertion length.	Measure from the tip of the nose to the ear lobe to the bottom of the xiphoid process. This is the approximate length of tube needed to reach the stomach.										
Mark the tube with a piece of tape to indicate the measured length.	This serves as a measurement landmark.										
7. Lubricate about 6 to 8 inches of the end of the tube with water-soluble jelly.	Lubrication reduces the friction between the mucous membrane and the tube.										
8. Lift the student's head, insert the tube into nostril, and pass it gently into the posterior nasopharynx. Direct the tube along the floor of the nostril and toward the ear on that side. As the tube is advanced and rotated, ask the student to swallow.	<i>Passage of the tube is facilitated by the natural contours of the body. Insert the tube through the nose only.</i>										

*A IOF will usually suffice. Larger tubes often cause irritation.

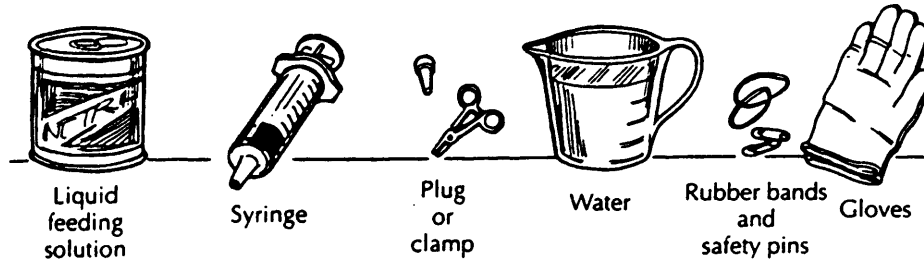
- | | |
|--|---|
| <p>9. When the tube reaches the pharynx, the student may gag. Allow him/her to rest a few moments and then proceed.</p> | <p><i>If gag reflex is triggered by the tube, place student in a sitting position with the neck slightly flexed.</i></p> |
| <p>10. Continue to advance the tube gently each time the student swallows. Insert the tube until the tape mark is at the nostril.</p> | <p><i>Swallowing facilitates passage of the tube. Continue to explain to student that breathing and swallowing can help in passing the tube.</i></p> |
| <p>11. If obstruction appears to prevent the tube from passing, do not use force. Rotating the tube gently may help. If unsuccessful, withdraw the tube, relubricate the tube, and insert it into the other nostril.</p> | <p><i>The tube should never be forced because of the danger of injury.</i></p> |
| <p>12. If there is vomiting or signs of respiratory distress, such as gasping, coughing, nasal flaring, tachypnea/tachycardia, wheezing, retractions, or cyanosis, immediately remove the tube.</p> | <p><i>Signs of respiratory distress may indicate placement of the tube in the trachea or bronchus.</i></p> |
| <p>13. After inserting the tube to where the tape mark is at the nostril, verify placement of the nasogastric tube in the stomach using the following methods:</p> | |
| <p>a. Aspirate contents of stomach with a syringe.</p> | <p><i>Aspirated stomach contents would indicate that the tube is in the stomach. No stomach contents could indicate that the tube is in the lungs.</i></p> |
| <p>b. Place end of tube in glass of water.</p> | <p><i>A steady stream of air bubbles on expiration will indicate the nasogastric tube is in the lungs rather than the stomach. Few bubbles will appear if the tube is in the stomach.</i></p> |
| <p>c. Place a stethoscope over the epigastrium area, inject 5 ml of air into the nasogastric tube, and listen for the sound of air entering the stomach as the air is injected into the tube.</p> | <p><i>If the sound of air entering the stomach is heard over the epigastrium area the nasogastric tube is in the stomach. No sound will be heard if the tube is in the lungs.</i></p> |

- d. Adjust tubing after these tests to determine proper position of the tube in the stomach.
- 14. Secure the tube with hypoallergenic tape. *Position tape and nasogastric tube so that the student's vision is not disturbed and that the tube does not rub against the nasal mucosa or cause pressures on nares.*
- 15. Document procedure. ⁶

PROCEDURE FOR NASOGASTRIC TUBE FEEDING—BOLUS METHOD

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe
 - Clamp or cap for end of tube (optional)
 - Water (if prescribed)
 - Rubber bands and safety pins
 - Stethoscope
 - Gloves (optional)
3. Explain procedure at the student's level of understanding. Position student.
 4. Wash hands. Put on gloves.
 5. Check placement of NG-tube.
 6. Remove cap or plug from NG-tube. Insert catheter-tipped syringe into the end of feeding tube. If ordered, gently draw back on the plunger to remove any liquid or medication that may be left in the stomach (i.e., residuals). Note the amount that was withdrawn from the feeding tube and return the contents to the stomach (if ordered).
 7. Close the tubing, disconnect the syringe, and remove plunger from syringe. Attach syringe without plunger to NG-tube.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of NG-tube. Shake can well to mix. Note expiration date. Some students may get cramps if feeding solution is too cold.

*Used to flush tubing after feeding.
Used to secure NG-tube to clothing.*

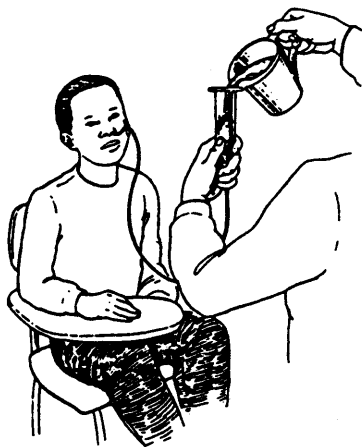
Student may be sitting or lying on right side with head elevated at a 30-degree angle. Make sure tubing is secured according to student-specific guidelines.

Always check placement before giving a feeding or medication. Do not apply undue traction or pull on NG-tubing.

Some students do not need to have residuals checked. Refer to physician's orders. Adjust the feeding volume according to physician's orders if a residual is present. If the residual is greater than recommended, hold feeding, wait 30–45 minutes, and check again.

Syringe should be held 6 inches above level of head or at prescribed height.

8. Pour feeding/fluid into syringe and allow to flow in by gravity.



9. Continue to pour feeding into syringe as contents empty into stomach.
10. Raise or lower syringe to adjust flow to prescribed rate.
11. When feeding is completed, pour prescribed amount of water into syringe, and flush tubing.
12. Clamp tubing; remove barrel of syringe and reinsert cap into end of tubing.
13. Make sure tubing is securely attached to cheek.
14. Remove gloves and wash hands.
15. Refer to student-specific guidelines regarding position and activity after feeding.
16. Wash catheter-tipped syringe with warm water and mild soap, rinse thoroughly, dry, and store in clean area.
17. Document feeding/medication, residual amount, and feeding tolerance on log sheet. 7

Be alert to any changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or formula is too cold.

Depending on the age and capabilities of the student, have him or her assist with the feeding by holding syringe or pouring fluid into it.

This will clear tubing of feeding and medication.

Make sure NG-tubing is not pulling on nose or causing discomfort.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic, labeled containers (not the original can) in the refrigerator. Formula should be discarded after 48 hours.

Report to family any changes in student's usual pattern.

Nasogastric Tube Feeding— Bolus Method Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. _____ cc (amount) _____ Formula/feeding solution							
5. Feeding to be completed in _____ minutes							
6. Position for feeding _____							
7. Identifies where procedure is done and student's activity level							
8. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. NG-tube _____ (size) _____ (type)							
2. Gloves							
3. Feeding solution at room temperature							
4. 60-cc catheter-tipped syringe							
5. Cap and clamp for tubing							
6. Rubber bands, safety pins							
7. Tap water							
8. Stethoscope							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains the procedure							
4. Washes hands, puts on gloves							
5. Checks for proper NG-tubing placement:							
a. Connects syringe to NG-tubing after removing cap/plug							
b. Places stethoscope over mid-left abdomen and gently pushes in 5-10 cc of air with syringe							
c. Listens with stethoscope and identifies sounds heard with proper placement							

**Nasogastric Tube Feeding—
Bolus Method
Skills Checklist**

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
<i>Student-Specific: (Steps 6–11 need to be individualized for each student.)</i>							
6. Aspirates stomach contents by pulling plunger back							
7. Measures stomach contents and returns to stomach							
8. If volume is over ____ cc, subtracts from feeding							
9. If volume is more than ____ cc, holds feeding							
10. Clamps/pinches NG-tubing							
11. Attaches syringe without plunger to NG-tube							
12. Pours 30–40 cc feeding into syringe							
13. Opens clamp on NG-tubing, allows feeding to run in slowly (The higher the syringe is held, the faster the feeding will flow.)							
14. Adds more formula when liquid is at 5-cc mark Continues to add until feeding is completed over prescribed time. (Lowers syringe if flow is too fast)							
15. Makes feeding like mealtime (young children may suck on a pacifier)							
16. Flushes NG-tube with ____ cc water							
17. Pinches or clamps NG-tubing. Disconnects syringe							
18. Clamps and/or caps NG-tube							
19. Makes sure NG-tube is secured							
20. Removes gloves and washes hands							
21. Refers to student-specific guidelines regarding position and activity after feeding							
22. Cleans, rinses, and stores syringe; stores formula as instructed							
23. Documents feeding/medication, residual amount, and feeding tolerance							
24. Reports any changes to family							

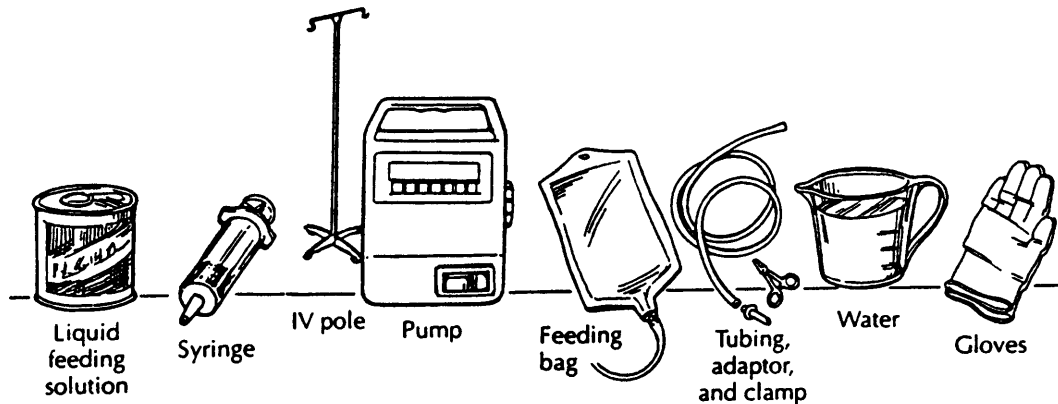
Checklist content approved by: _____

Parent/Guardian signature _____ Date _____

PROCEDURE FOR NASOGASTRIC TUBE FEEDING— SLOW-DRIP AND/OR CONTINUOUS FEEDING

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe
 - Feeding pump and IV stand (optional)
 - Water (if prescribed)
 - Clamp or cap for end of tube (optional)
 - Feeding bag
 - Rubber bands and safety pins
 - Stethoscope
 - Gloves (optional)
3. Explain procedure at the student's level of understanding. Position student.
 4. Wash hands. Put on gloves.
 5. Check placement of NG-tube.
 6. Remove cap or plug from NG-tube and insert a catheter-tipped syringe. If ordered, gently draw back on the plunger to remove any liquid or medication that may be left in the stomach (i.e., residuals). Note the amount that was withdrawn from the feeding tube and return the contents to the stomach (if ordered).

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of NG-tube. Some students may get cramps if feeding solution is too cold. Shake can well to mix. Check expiration date.

Used to flush tubing after feeding.

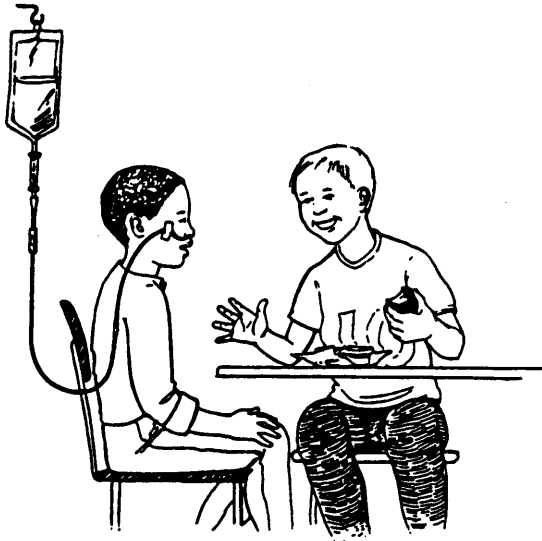
Used to secure NG-tube to clothing.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills. Student may be sitting or lying on right side with head elevated at a 30-degree angle. When positioning student, make sure NG-tube is secured according to student-specific guidelines.

Always check placement before giving a feeding or medication.

Do not apply undue traction or pull on nasogastric tubing. Some students may not need to have residuals checked. Refer to physician's orders. Adjust the feeding volume according to physician's orders if a residual is present. If the residual is greater than recommended, hold feeding, wait 30–45 minutes, and check again.

7. Close the nasogastric tubing. Disconnect the syringe.
8. Pour feeding/fluids into feeding bag and run feeding through bag and tubing to the tip. Clamp.
9. Hang bag on pole at height required to achieve prescribed flow. If a feeding pump is used, place tubing into pump mechanism and set for proper flow rate.
10. Insert tip of feeding bag tube into NG-tube, tape securely. Unclamp NG-tube.
11. Open clamp of feeding bag tubing and adjust until drips flow at prescribed rate.



12. For continuous feeding with a pump, add more fluid to bag when empty.
13. When single feeding is completed (bag is empty), clamp feeding bag tubing, and clamp NG-tube.
14. Disconnect feeding bag from NG-tube.
15. Unclamp NG-tube and flush with water, if ordered, using a syringe.
16. Clamp and cap NG-tube.
17. Make sure tubing is securely attached to cheek.
18. Remove gloves and wash hands.
19. Refer to student-specific guidelines regarding position and activity after feeding.
20. Wash feeding bag and syringe in soapy water. Rinse thoroughly, dry, and store in a clean area.
21. Document feeding/medication, residual volumes, and feeding tolerance on log sheet. 9

If medication is prescribed, administer before or after feeding according to student-specific guidelines.

School activities may continue during feeding provided the student is sedentary.

If feeding pump is used, open clamp completely.

Be alert to any unusual changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or formula is too cold.

Check rate and flow periodically and adjust if needed. Check for residual as ordered.

This clears the tubing of any feeding fluid.

The feeding tube may be disconnected while the student is being transported to and from the school program.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic containers (not the original can), labeled, in the refrigerator. Formula should be discarded after 48 hours.

Report to family any changes in the student's usual pattern.

Nasogastric Tube Feeding— Slow Drip or Continuous Feeding Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. _____ cc (amount) _____ Formula/feeding at room temperature							
5. Feeding to be completed in _____ minutes							
6. Position for feeding _____							
7. Identifies where procedure is done and student's activity level							
8. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. NG-tube _____ (size) _____ (type)							
2. Gloves (optional)							
3. Feeding solution in container (bag)							
4. 60-cc catheter-tipped syringe							
5. Pump and IV stand (if used)							
6. Clamp or cap							
7. Rubber bands, safety pins							
8. Tap water							
9. Stethoscope							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains the procedure							
4. Washes hands, puts on gloves							
5. Checks for proper NG-tubing placement:							
a. Connects syringe to NG-tubing							
b. Places stethoscope over mid-left abdomen and gently pushes in 5–10 cc of air with syringe							

10

(continued)

Format adapted from Children's Hospital Chronic Illness Program, Ventilator Assisted Care Program. (1987). *Getting it started and keeping it going: A guide for respiratory home care of the ventilator assisted individual*. New Orleans, LA: Author; adapted by permission.
Children and Youth Assisted by Medical Technology in Educational Settings (2nd ed.) © 1997 Paul H. Brookes Publishing Co., Baltimore.

Nasogastric Tube Feeding— Slow Drip or Continuous Feeding Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
c. Listens with stethoscope and identifies sounds heard with proper placement							
<i>Student-Specific: (Steps 6–11 need to be individualized for each student.)</i>							
6. Aspirates stomach contents by pulling plunger back							
7. Measures volume of contents and returns to stomach							
8. If volume is over ____ cc, subtracts from feeding							
9. If volume is more than ____ cc, holds feeding							
10. Clamps/pinches NG-tubing. Disconnects syringe							
11. Pours feeding into container, running fluid through tubing to tip, and clamps tubing							
12. Hangs container on pole at height required to deliver prescribed flow rate. (If a pump is used, places tubing into pump mechanism and sets to prescribed rate.)							
13. Inserts tip of feeding container tubing into NG-tube and tapes securely, unclamps NG-tube							
14. Opens clamp on feeding bag tubing and adjusts flow to prescribed rate							
15. For a <i>continuous feeding</i> with a pump, adds more fluid to bag when empty							
16. Checks rate and flow periodically and adjusts if needed							
17. When <i>single feeding</i> is completed (bag empty), clamps feeding bag tubing and pinches or clamps NG-tubing Disconnects feeding container tubing							
18. Makes feeding like mealtime (young children may suck on a pacifier)							
19. Flushes NG-tube with ____ cc water							
20. Clamps and/or caps NG-tube							
21. Makes sure NG-tube is secured							
22. Removes gloves and washes hands							
23. Refers to student-specific guidelines regarding position and activity after feeding							
24. Cleans, rinses, and stores feeding container and tubing; stores formula as instructed							

(continued)

**Nasogastric Tube Feeding—
Slow Drip or Continuous Feeding
Skills Checklist**

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
25. Documents feeding/medication, residual amount, and any changes							
26. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

GASTROSTOMY TUBE

PURPOSE

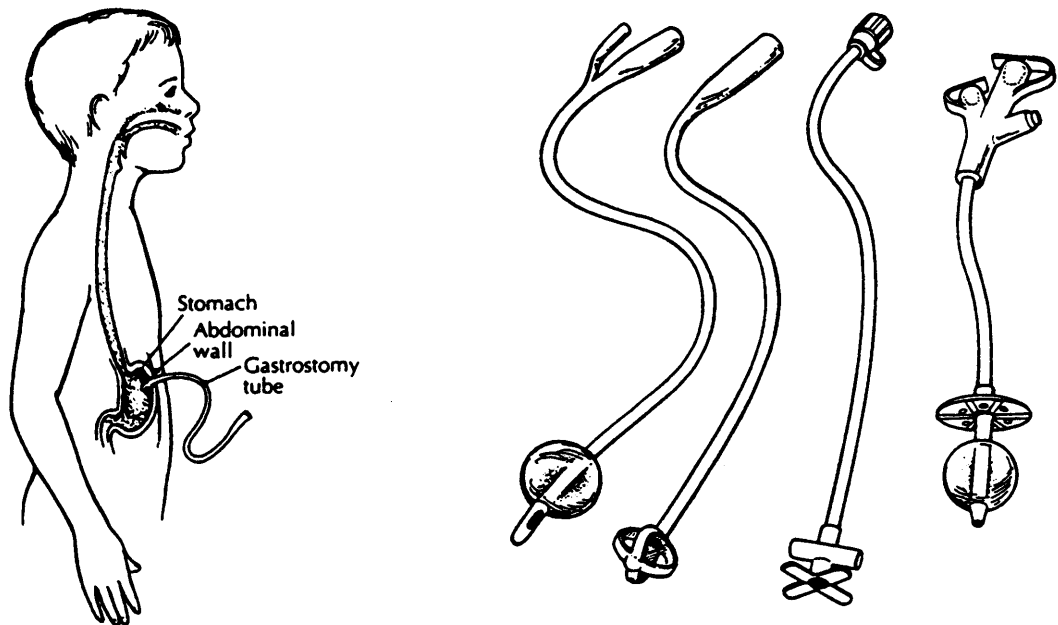
A gastrostomy is a surgical opening into the stomach through the surface of the abdomen.

The gastrostomy tube (G-tube) is a flexible catheter held in place by a balloon or a widened flat "mushroom" at the tip of the tube inside the stomach. The tube remains in place at all times and is closed between feedings to prevent leakage of stomach contents. G-tubes cause no discomfort.

The G-tube may be used to administer food and fluids directly into the stomach. This method is used to bypass the usual route of feeding by mouth when

- There is an obstruction of the esophagus (i.e., food pipe).
- Swallowing is impaired, and the student is at risk for choking/aspiration.
- The student has difficulty taking enough food by mouth to maintain adequate nutrition.

A student may receive a G-tube feeding by either the *bolus* or *continuous (slow-drip)* method. A bolus is a specific amount of feeding given at one time (over 20–30 minutes). A slow drip is a feeding that is given slowly over a number of hours, running continuously.



The G-tube may be used to drain abdominal contents or to release air or gas when venting is required.

SUGGESTED SETTINGS

There are no restrictions as to where a student may be fed. The setting should be clean and appropriate to the student's need/desire for privacy. The student may be fed with other students or, if he or she prefers, in a private setting (e.g., the health room). Some students receive feedings every 2–3 hours. These students may have their feedings administered in the classroom. They need to remain stationary and should be able to continue sedentary school activities (e.g., reading, doing art, singing, working on a computer, learning social studies).

Some students do not require feedings during the school hours. Their G-tubes are used to supplement oral intake of food and fluids or are used when the student is ill or when oral intake is not adequate.

For students whose G-tubes require venting or drainage, the procedures should be done in the health room or another private area. These procedures may be done after each feeding or according to physicians' orders.

G-tubes usually are covered by clothing. Students with G-tubes should be able to participate in all school activities, but participation in physical education should be determined on an individual basis and may require modification of activities.

SUGGESTED PERSONNEL AND TRAINING

A health assessment needs to be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

A G-tube feeding may be administered by the school nurse, parent, teacher, student's aide, or other staff person with proven competency-based training in appropriate techniques and problem management. The student should be encouraged to assist with the G-tube feeding as much as possible.

School personnel who have regular contact with a student who has a G-tube should receive general training that covers the student's specific health care needs, potential problems, and how to implement the established emergency plan.

The basic skills checklist on pages 34-35, 39-41, can be used as a foundation for competency-based training in appropriate techniques. It outlines specific procedures step by step. Once the procedures have been mastered, the completed checklist serves as documentation of training.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's IHCP must be tailored to the individual's needs. The following section covers the procedure for G-tube care and possible problems and emergencies that may arise. It is essential to review it before writing the IHCP.

A sample plan is included in this manual. It may be copied and used to develop a plan for each student. For a student with a G-tube, the following items should receive particular attention:

- Size and type of feeding device
- Type of portable pump
- Type of feeding the student is receiving (e.g., bolus/continuous drip; liquid formula-purée/liquified food from home)
- Activity level after feeding
- Positioning during and after feeding
- Determining the need to measure gastric residuals
- Determining the need to vent the G-tube
- Patency of gastrostomy tract and time frame for reinsertion should the G-tube fall out
- Monitoring concerns (e.g., vomiting, abdominal distension, pain)
- Amount of food or drink a student can take by mouth
- Amount of oral stimulation during feeding, as ordered
- Medications and schedule for administering
- Student-specific guidelines for feeding administration during transport
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)
- Manufacturer's specific directions 11

Possible Problems that Require Immediate Attention

Observations

Color changes/breathing difficulty

Reason/Action

This may be due to aspiration of feeding into lungs. Stop feeding immediately. Call nurse if not present. Assess situation. If problem continues, institute emergency plan and notify family.

Possible Problems that Are Not Emergencies

Observations

Nausea and/or cramping

Reason/Action

Check rate of feeding—it may need to be decreased.

Check temperature—formula may be too cold: stop feeding, let feeding get to room temperature, then administer. If problem continues, notify school nurse, family, and physician.

Vomiting

If all the above have been checked, stop feeding, call school nurse or family. Remove residual if ordered.

Blocked gastrostomy tubing

May be due to inadequate flushing or very thick fluid. Squeeze or roll gastrostomy tubing with fingers moving slowly down toward student's stomach. Try a catheter-tipped syringe filled with warm water, held high to facilitate movement of fluid. Try to draw back plunger of syringe. If blockage remains, contact school nurse or family.

Redness/irritation/bleeding/drainage

Make sure tubing is not being pulled. Check G-tube site for leakage.

Clean stoma site if leakage of food/fluid/medication comes in contact with skin.

Refer to student- or equipment-specific guidelines for cleaning instructions.

Notify school nurse and family of gastrostomy site problems.

G-tube falls out

The G-tube may need to be reinserted immediately if a student's tract closes quickly. Cover the site with a dry dressing or large bandage. Notify family.

General Information Sheet

Students with Gastrostomy Tubes

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires a gastrostomy tube (G-tube). This is a simple and safe way of giving food, medicines, and fluids directly into the stomach because the student is unable to take these by mouth.

The gastrostomy is a surgical opening into the stomach. A flexible rubber tube (i.e., the G-tube) is put into the surgical opening. It is held in place from the inside of the stomach, as well as from the outside, at all times. The tube is clamped or capped between feedings to prevent leakage. This tube does not normally cause the student discomfort and is covered by clothing.

The student may receive feedings or medication through the G-tube as needed during the schoolday in the classroom, the lunchroom, or the health office. Unless he or she has a condition that otherwise would interfere with participation in physical education or other activities, there is no reason why he or she cannot participate fully. Special consideration may be needed, however, for field trips or other activities during which the student may not be able to receive a regularly scheduled feeding.

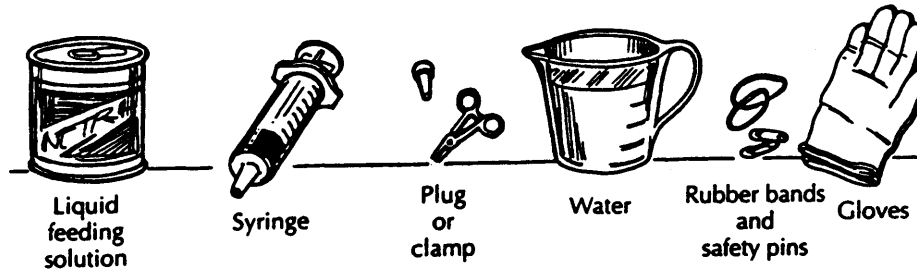
The following staff members have been trained to deal with any problems that may arise with this student:

For more information about G-tubes or the student's needs, consult the school nurse or family. 12

PROCEDURE FOR GASTROSTOMY TUBE FEEDING— BOLUS METHOD

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe or other container for feeding
 - Clamp or cap for end of tube (optional)
 - Water (if prescribed)
 - Rubber bands and safety pins
 - Gloves (optional)
3. Explain the procedure to the student at his or her level of understanding. Encourage the student to participate as much as possible.
 4. Position student.
 5. Wash hands. Put on gloves.
 6. Remove cap or plug from G-tube and insert a catheter-tipped syringe into the end of feeding tube.
 7. Unclamp the tubing and gently draw back on the plunger to remove any liquid or medication that may be left in the stomach (i.e., residuals). Return residuals to stomach (if ordered).
 8. Clamp the tubing, disconnect the syringe, and remove plunger from syringe.
 9. Reinsert catheter tip of syringe into tubing.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of G-tube. Some students get cramps if the feeding solution is too cold. Shake can well to mix. Check expiration date.

*Used to flush tubing after feeding.
Used to secure G-tube to clothing.*

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

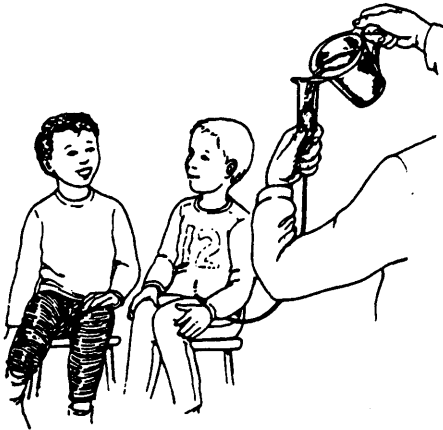
Student may be sitting or lying on right side with head elevated at a 30-degree angle. When positioning student, make sure clamp is not pressing on skin. Tubing may be pinned to shirt. Remember to unpin G-tube before proceeding with feeding.

G-tube is still clamped. Do not pull on tubing.

Note the amount that was withdrawn from the feeding tube. Adjust the feeding volume according to physician's orders if a residual is present. If the residual is greater than recommended, hold feeding, wait 30–45 minutes, and check again. Some students may not need to have residuals checked.

Syringe should be held 6 inches above level of stomach or at prescribed height.

10. Unclamp tube, and allow bubbles to escape.
11. Pour feeding/fluid into syringe and allow to flow in by gravity.



12. Continue to pour feeding into syringe as contents empty into stomach.
13. Raise or lower syringe or container to adjust flow to prescribed rate.
14. When feeding is completed, pour prescribed amount of water into syringe, and flush tubing.
15. Vent G-tube if ordered. (Open G-tube to air.)
16. Clamp tubing, remove barrel of syringe, and reinsert cap into end of tubing.

17. Apply dressing, if needed, using universal precautions described in Chapter 5.
18. Remove gloves. Wash hands.
19. Make sure tubing is secure and tucked inside clothing, not inside diaper or under-pants.
20. Refer to student-specific guidelines regarding position and activity after feeding.

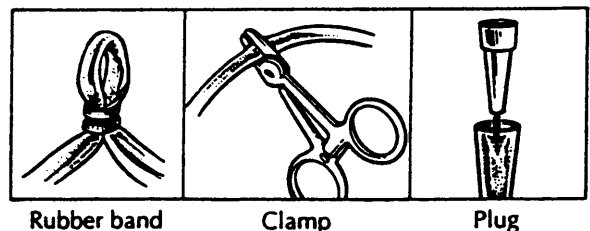
If medications are prescribed, administer before or after feeding, according to student-specific recommendations. If a container other than a syringe is used for the feeding, unclamp tubing and allow to flow in by gravity, using the same procedure.

Be alert to any changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or the formula is too cold.

Depending on the age and capabilities of the student, have him or her assist with the feeding by holding syringe or pouring fluid into it. Keep syringe partially filled to prevent air from entering stomach.

This will clear tubing of feeding and medication.

Venting allows drainage of fluid or release of gas bubbles in the stomach. Some students may have problems with gas otherwise.



Rubber band

Clamp

Plug

Tubing may be pinned or taped to shirt if parent follows this practice.

21. Wash syringe and other reusable equipment in soapy water. Rinse thoroughly, dry, and store in a clean area.
22. Document feeding/medication, residual amount, and feeding tolerance on log sheet. 13

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic containers, labeled correctly (not the original can) in the refrigerator. Formula should be discarded after 48 hours.

Report to family any change in the student's usual pattern.

Student's name: _____

Person trained: _____

Position: _____

Gastrostomy Feeding Bolus Method Skills Checklist

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. ____ cc (amount) _____ Formula/feeding (type of feeding)							
5. Feeding to be completed in ____ minutes							
6. Position for feeding _____							
7. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Catheter _____ (size) _____ (type) Balloon size ____ cc							
a. Small port plug							
b. Feeding port							
2. Gloves							
3. Formula at room temperature							
4. 60-cc catheter-tipped syringe							
5. Clamp and plug							
6. Small glass of tap water, if prescribed							
7. Rubber bands, safety pins							
D. Procedure:							
1. Washes hands							
2. Gathers equipment							
3. Positions student and explains procedure							
4. Washes hands, puts on gloves							
5. Removes plug from feeding tube							
<i>Student-Specific: (Steps 6–12 need to be individualized for each student.)</i>							
6. Checks for proper placement of tube: Attaches syringe and aspirates stomach contents by pulling plunger back							
7. Measures contents							

Gastrostomy Feeding Bolus Method Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
8. Returns stomach contents to stomach							
9. If stomach contents are over ____ cc, subtract from feeding							
10. If more than ____ cc, hold feeding							
11. Pinches or clamps off tube							
12. Removes syringe							
13. Attaches syringe without plunger to feeding port							
14. Pours formula (room temperature) into syringe (approximately 30cc–40cc)							
15. Releases or unclamps tube and allows feeding to go in slowly							
16. Lowers the syringe if feeding is going too fast							
17. When feeding gets to 5-cc marker, adds more formula							
18. Continues this procedure until the feeding has been completed							
19. Takes about 30 minutes to complete feeding (the higher the syringe is held, the faster the feeding will flow)							
20. Makes feeding like mealtime (young children may suck on a pacifier)							
21. Flushes tube with ____ cc of water when feeding is complete							
22. Vents G-tube if ordered							
23. Pinches off tubing, removes syringe, and closes off clamp Reinserts cap or plug into end of G-tube							
24. Applies dressing, if needed, using universal precautions							
25. Removes gloves and washes hands							
26. Makes sure tubing is secured and tucked inside clothing							
27. Refers to student-specific guidelines regarding position and activity after feeding							
28. Washes syringe and other reusable equipment with soap and warm water; rinses thoroughly; dries and stores in clean area; stores formula as instructed							
29. Documents feeding/medication, residual amount, and feeding tolerance							
30. Reports any changes to family							

Checklist content approved by: _____

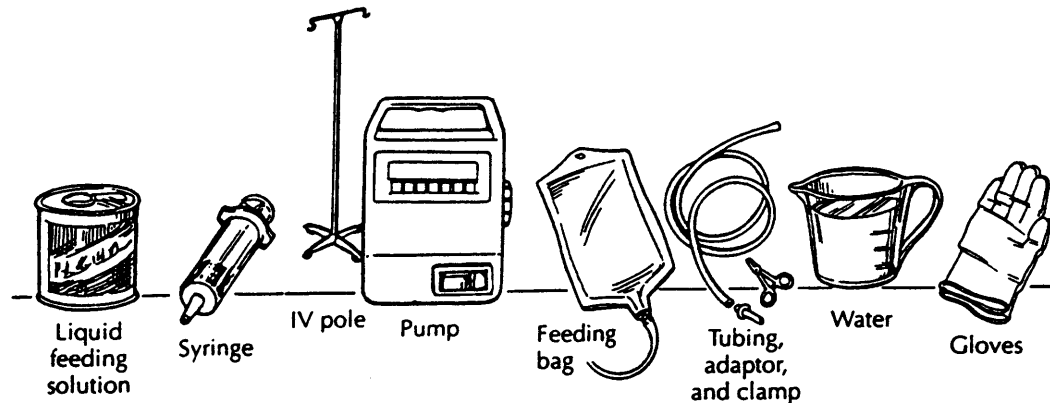
Parent/Guardian signature _____ Date _____

Children and Youth Assisted by Medical Technology in Educational Settings (2nd ed.) © 1997 Paul H. Brookes Publishing Co., Baltimore.

PROCEDURE FOR GASTROSTOMY TUBE FEEDING— SLOW-DRIP METHOD OR CONTINUOUS FEEDING BY PUMP

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe
 - Feeding pump and IV stand (optional)
 - Clamp or cap for end of tube (optional)
 - Water (if prescribed)
 - Feeding bag and tubing
 - Rubber bands and safety pins
 - Gloves (optional)
3. Explain the procedure to the student at his or her level of understanding. Encourage the student to participate as much as possible.
 4. Position student.
 5. Wash hands. Put on gloves.
 6. Remove cap or plug from G-tube and insert a catheter-tipped syringe into the end of feeding tube.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of G-tube. Some students get cramps if the feeding solution is too cold. Shake can well to mix. Check expiration date.

Feeding pumps have alarms. Become familiar with meanings of alarms and how to respond to them.

Used to flush tubing after feeding.

Used to secure G-tube to clothing.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-help skills.

Student may be sitting or lying on right side with head elevated at a 30-degree angle. When positioning student, make sure clamp is not pressing on skin. Remember to unpin G-tube before proceeding with feeding.

G-tube is still clamped. Do not apply undue traction or pull on gastrostomy tubing.

7. Unclamp the tubing and gently draw back on the plunger to remove any liquid or medication that may be left in the stomach (i.e., residuals). Look at amount in tube and push fluid slowly back into stomach.
8. Clamp the gastrostomy tubing. Disconnect the syringe.
9. Pour feeding/fluids into feeding bag and run feeding through bag and tubing to the tip. Clamp.
10. Hang bag on pole at height required to achieve prescribed flow. If a feeding pump is used, place tubing into pump mechanism and set for proper flow rate.
11. Insert tip of feeding bag tube into G-tube, tape securely. Unclamp G-tube.
12. Open clamp of feeding bag tubing and adjust until drips flow at prescribed rate.
13. For *continuous feeding* with pump, add more fluid to bag when empty.
14. When *single feeding* is completed (bag empty), clamp feeding bag tubing, and clamp G-tube.

Be alert to any unusual changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or formula is too cold.

15. Disconnect feeding bag from G-tube.
16. Unclamp G-tube and flush with water if ordered, using a syringe.
17. Vent G-tube if indicated. (Open G-tube to air.)
18. Clamp and cap G-tube.

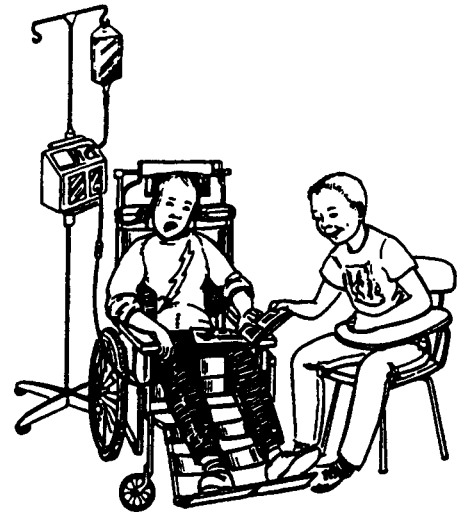
Note the amount that was withdrawn from the feeding tube. Adjust the feeding volume according to physician's orders if a residual is present. If the residual is greater than recommended, hold feeding, wait 30–45 minutes, and check again. Some students may not need to have residuals checked.

If medication is prescribed, administer before or after feeding, according to student-specific guidelines.

School activities may continue during feeding provided the student is sedentary.

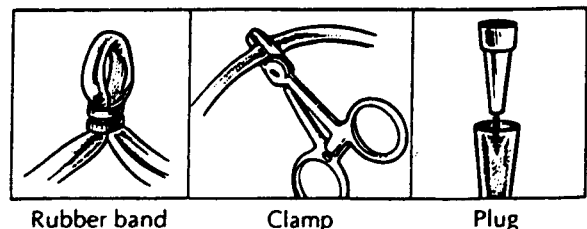
Do not apply undue traction on gastrostomy tubing.

If feeding pump is used, open clamp completely. Check flow periodically and adjust if needed.



This clears the tube of any feeding fluid.

Some students may have gas otherwise.



Rubber band

Clamp

Plug

19. Apply dressing, if needed, using universal precautions described in Chapter 5.
20. Remove gloves and wash hands.
21. Make sure tubing is secure and tucked inside clothing, not inside diaper or under-pants.
22. Refer to student-specific guidelines regarding position and activity after feeding.
23. Wash syringe and other reusable equipment in soapy water. Rinse thoroughly, dry, and store in a clean area.
24. Document feeding and/or medication, residual volumes, and feeding tolerance in log.

15

Tubing may be pinned or taped to shirt.

The feeding tube may be disconnected while the student is being transported to and from the school program.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic, labeled containers (not the original can) in the refrigerator. Formula should be discarded after 48 hours.

Report to family any change in the student's usual pattern.

Gastrostomy Feeding Slow Drip or Continuous Method Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. _____ cc (amount) _____ Formula/feeding							
5. Feeding to be completed in _____ minutes							
6. Position for feeding _____							
7. Identifies where procedure is done and student's activity level							
8. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Gastrostomy tube _____ (size) _____ (type) Balloon size _____ cc							
a. Small port plug							
b. Feeding port							
2. Gloves							
3. Feeding solution at room temperature							
4. 60-cc catheter-tipped syringe							
5. Pump and IV stand (if used)							
6. Clamp and plug/cap							
7. Tap water							
8. Feeding container and tubing							
9. Rubber bands, safety pins							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains the procedure							
4. Washes hands, puts on gloves							
5. Removes plug from feeding tube							
Student-Specific: (Steps 6-11 need to be individualized for each student.)							

Gastrostomy Feeding Slow Drip or Continuous Method Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
6. Checks for proper placement of tube: Attaches syringe and aspirates stomach contents by pulling plunger back							
7. Measures contents							
8. Returns contents to stomach							
9. If volume is more than ____ cc, subtract from feeding							
10. If more than ____ cc, hold feeding							
11. Pinches or clamps off tubing and removes syringe							
12. Pours feeding/fluids into feeding container, runs feeding through tubing to the tip, and clamps tubing							
13. Hangs container on pole at height required to deliver prescribed flow; if pump is used, places tubing into pump and sets flow rate							
14. Opens plug and inserts tubing into the tube							
15. Opens clamp on tubing and adjusts flow to prescribed rate (if pump is used, opens clamp completely)							
16. For a <i>continuous feeding</i> with a pump, adds more fluid to container when empty							
17. Checks rate and flow periodically and adjusts if needed							
18. When <i>single feeding</i> is completed (bag empty), clamps tubing and G-tube and disconnects from G-tube							
19. Makes feeding like mealtime (young children may suck on pacifier)							
20. Attaches catheter-tipped syringe with plunger removed and flushes G-tube with ____ cc water							
21. After flushing, lowers syringe below stomach level or leaves elevated and open for specified time to vent G-tube							
22. Clamps or caps G-tube							
23. Applies dressing, if needed, using universal precautions							
24. Removes gloves and washes hands							
25. Secures tubing and tucks inside clothing							
26. Refers to student-specific guidelines regarding position and activity after feeding							

(continued)

Gastrostomy Feeding Slow Drip or Continuous Method Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
27. Washes syringe and other reusable equipment; rinses thoroughly; dries and stores in clean area; stores formula as instructed							
28. Documents feeding/medication, residual amount, and feeding tolerance							
29. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

SKIN-LEVEL GASTROSTOMY INDWELLING FEEDING DEVICE

PURPOSE

A gastrostomy is a surgical opening into the stomach through the surface of the abdomen. The skin-level gastrostomy feeding device is a "T"-shaped plastic device held in place by a mushroom-shaped dome or fluid-filled balloon inside the stomach. The device remains in place at all times and is capped by an attached safety plug between feedings. In addition, the dome has an antireflux valve to further prevent leakage of stomach contents. A feeding is administered by inserting a small tube into the device. When the feeding is complete, the tube is removed and the safety plug closed.

The gastrostomy device may be used to administer food, fluids, and/or medications directly into the stomach. This method is used to bypass the usual route of feeding by mouth when

- There is an obstruction of the esophagus (i.e., food pipe).
- Swallowing is impaired, and the student is at risk for choking/aspiration.
- The student has difficulty taking enough food by mouth to maintain adequate nutrition.

A student may receive a gastrostomy feeding by either *bolus* or *continuous*, or *slow-drip*, method. A bolus is a specific amount of feeding given at one time (over 20–30 minutes). A slow drip, or continuous, feeding is given slowly over a number of hours.

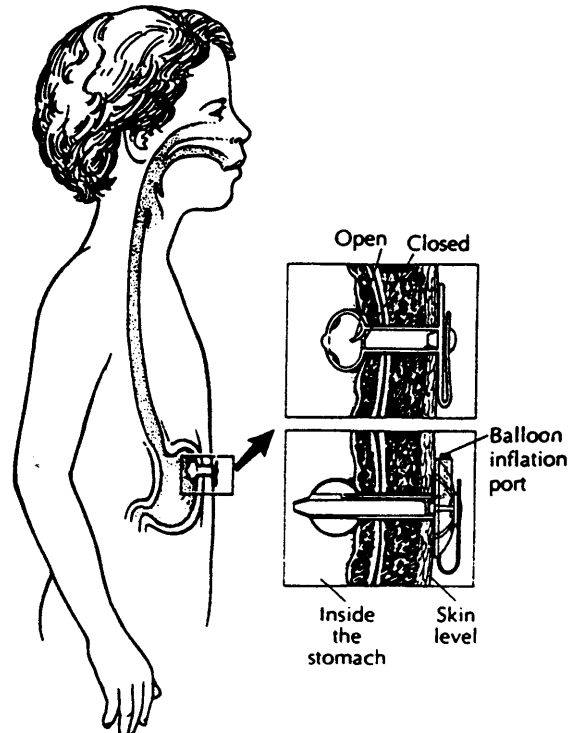
The gastrostomy device also may be used to drain abdominal contents or to release air or gas when venting is required. This is done by inserting a special adaptor or tube to open the antireflux valve.

SUGGESTED SETTINGS

There are no restrictions as to when a student may be fed. The student may be fed with other students or, if he or she prefers, in a more private setting (e.g., the health room). Some students receive feedings every 2–3 hours. These students may have their feedings administered in the classroom. They need to remain stationary and should be able to continue sedentary school activities (e.g., reading, doing art, singing, working on the computer, learning social studies).

Some students do not require feedings during the school hours. Their devices are used to supplement oral intake of food and fluids or are used when the student is ill or oral intake is not adequate.

For students whose gastrostomy devices require venting or drainage, the procedures should be done in the



health room or another private area. These procedures may be done after each feeding or according to physicians' orders.

Gastrostomy devices usually are covered by clothing. Students with these devices should be able to participate in all school activities, but participation in physical education should be determined on an individual basis and may require modification of activities.

SUGGESTED PERSONNEL AND TRAINING

A health assessment must be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

A gastrostomy device feeding may be administered by the school nurse, parent, teacher, student's aide, or other staff person with proven competency-based training in appropriate techniques and problem management. The student should be encouraged to assist with the feeding as much as possible.

School personnel who have regular contact with a student who has a skin-level gastrostomy feeding device should receive general training that covers the student's specific health care needs, potential problems, and how to implement the established emergency plan.

The basic skills checklist on pages 49-50, 54-55 can be used as a foundation for competency-based training in appropriate techniques. It outlines specific procedures step by step. Once the procedures have been mastered, the completed checklist serves as documentation of training.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's IHCP must be tailored to the individual's needs. The following section covers the procedure for skin-level gastrostomy device care and possible problems and emergencies that may arise. It is essential to review it before writing the IHCP.

A sample plan is included in Chapter 6. It may be copied and used to develop a plan for each student. For a student with a skin-level gastrostomy device, the following items should receive particular attention:

- Size and type of feeding device
- Type of portable pump
- Type of feeding the student is receiving (e.g., bolus/continuous drip)
- Activity level after feeding
- Positioning during and after feeding
- Determining the need to measure gastric residuals
- Determining the need to vent the gastrostomy device (familiarity with student-specific device and venting method)
- Patency of gastrostomy tract and time frame for reinsertion of the device should it fall out
- Monitoring concerns regarding feeding (e.g., vomiting, abdominal distension, pain)
- Amount of food and fluid a student can take by mouth
- Amount of oral stimulation during feeding, as ordered
- Procedure should tube come out
- Student-specific guidelines for feeding administration during transport
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)
- Manufacturer's specific directions 17

Possible Problems that Require Immediate Attention

Observations

Color changes/breathing difficulty

Reason/Action

This may be due to aspiration of feeding into lungs. Stop feeding immediately. Call nurse if he or she is not present. Assess situation. If problem continues, institute emergency plan and notify family.

Possible Problems that Are Not Emergencies

Nausea and/or cramping

Check rate of feeding—it may need to be decreased.

Check temperature—feeding may be too cold: Stop feeding, let feeding get to room temperature, then administer. If problem continues, notify school nurse, family, and physician.

Vomiting

If all of the above have been checked, stop feeding, and call school nurse or family.

Blocked gastrostomy device

May be due to inadequate flushing or very thick fluid. Flush with warm water after feeding or medication. If blockage remains, contact family.

Bleeding/drainage/redness/irritation

Check skin around gastrostomy device site daily. Clean stoma site if leakage of food/fluid/medication comes in contact with skin.

Refer to student-specific guidelines for cleaning instruction.

Turn device in a complete circle with each cleaning.

Dry stoma well; open to air to facilitate drying.

Leaking of stomach contents

May be due to a problem with the antireflux valve (sticking or broken). Clean skin and notify family.

Gastrostomy device falls out

This is not an emergency. Save the device in a clean gauze or container for reinsertion. In some students, whose tracts may close quickly, the gastrostomy device may need to be inserted within 1–2 hours. Cover gastrostomy site with bandage or clean dressing. Contact family and/or school nurse.

General Information Sheet

Students with Skin-Level Gastrostomy Feeding Devices

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires a gastrostomy feeding device. This is a simple and safe way of giving food, medicines, and fluids directly into the stomach because the student is unable to take these by mouth.

The gastrostomy is a surgical opening into the stomach. A skin-level gastrostomy feeding device is put into the surgical opening. It is held in place from the inside of the stomach and is capped between feedings to prevent leakage. This gastrostomy device does not normally cause the student discomfort and is covered by clothing.

The student may receive feedings or medication through the gastrostomy feeding device as needed during the schoolday in the classroom, the lunchroom, or the health office. Unless he or she has a condition that otherwise would interfere with participation in physical education or other activities, there is no reason why he or she cannot participate fully. Special consideration may be needed, however, for field trips or other activities during which the student may not be able to receive a regularly scheduled feeding.

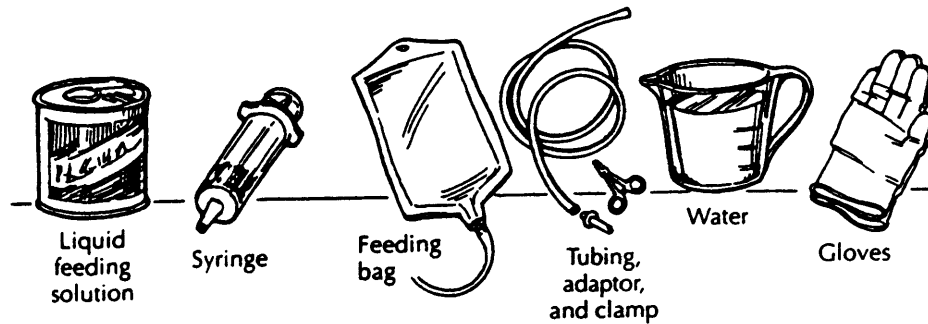
The following staff members have been trained to deal with any problems that may arise with this student:

For more information about skin-level gastrostomy devices or the student's needs, consult the school nurse or family. 18

PROCEDURE FOR SKIN-LEVEL GASTROSTOMY DEVICE FEEDING— BOLUS METHOD

PROCEDURE

1. Wash hands.
2. Assemble equipment:



POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe or other container for feeding (e.g., bottle, bag)
 - Adaptor with tubing and clamp
 - Water (if prescribed)
 - Gloves (optional)
3. Explain the procedure to the student at his or her level of understanding. Encourage the student to participate as much as possible.
 4. Position student.
 5. Wash hands. Put on gloves.

Identify size and type of gastrostomy device. Some students get cramps if the feeding solution is too cold. Be sure to shake cans of formula well and note expiration date.

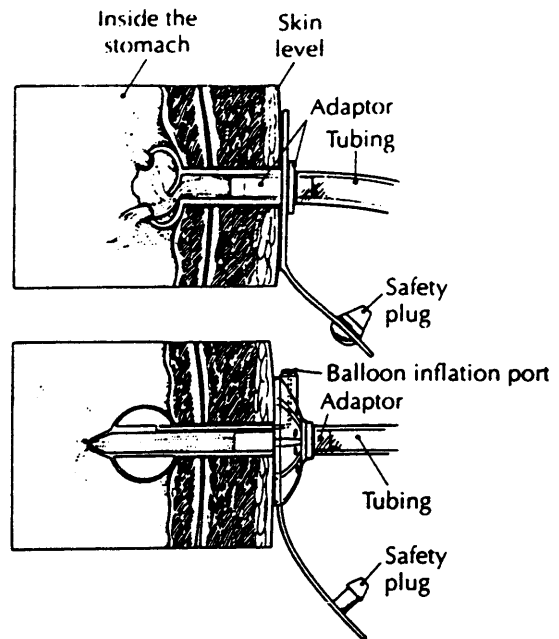
The adaptor will vary with the size of the device.

Used to flush tubing after feeding.

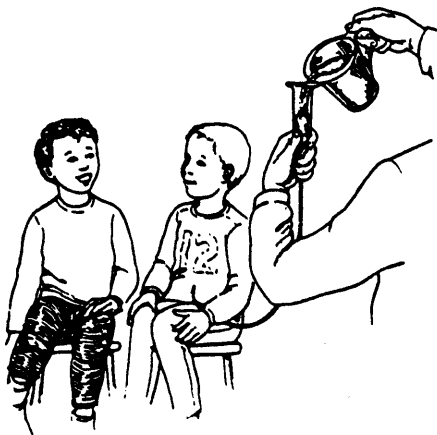
By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-help skills.

Student may be sitting or lying on right side with head elevated at a 30-degree angle.

6. Remove plunger from syringe and attach the adaptor to feeding syringe.
7. Open safety plug from device and insert adaptor and tubing into device.



8. Clamp or pinch off tubing.
9. Pour feeding into syringe.
10. Elevate syringe and unclamp tubing.
11. Continue to pour feeding into syringe as contents empty into stomach.
12. Raise or lower syringe or container to adjust flow to prescribed rate.



13. Flush tubing and device with water, if ordered.

If medications are prescribed, administer before or after feeding, according to student-specific guidelines.

If another type of container is used for feeding solution, unclamp tubing and allow to flow in by gravity.

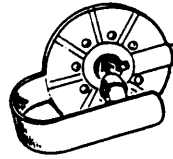
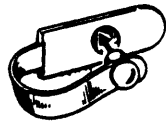
Syringe should be held 6 inches above level of stomach or at prescribed height.

Depending on the age and capabilities of the student, have him or her assist with the feeding by holding syringe or pouring fluid into it. Keep syringe partially filled to prevent air from entering stomach.

Be alert to any changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or the formula is too cold.

This will clear device of feeding and medication. After flushing, lower the syringe below stomach level to facilitate burping.

14. When feeding is complete, remove the adaptor with feeding syringe.
15. Close safety plug.



16. Remove gloves. Wash hands.
17. Refer to student-specific guidelines regarding position and activity after feeding.
18. Wash catheter-tipped syringe and tubing with warm water and mild soap. Rinse, dry, and store in clean area.
19. Document feeding/medication, residual amount, and feeding tolerance on log sheet.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic containers, labeled correctly, (not the original can) in the refrigerator. Formula should be discarded after 48 hours.

Report to family any change in the student's usual pattern.

Skin-Level Gastrostomy Feeding— Bolus Method Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. _____ cc (amount) _____ Formula/feeding (type of feeding)							
5. Feeding to be completed in _____ minutes							
6. Position for feeding _____							
7. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Size and type of gastrostomy device							
2. Gloves							
3. Formula at room temperature							
4. 60-cc catheter-tipped feeding syringe							
5. Adaptor with tubing and clamp							
6. Tap water (if prescribed)							
D. Procedure:							
1. Washes hands							
2. Gathers equipment							
3. Positions student and explains procedure							
4. Washes hands, puts on gloves							
5. Attaches the adaptor to feeding syringe without plunger							
6. Opens safety plug and attaches the adaptor and tubing with feeding syringe to the skin-level feeding device							
7. Clamps or pinches off tubing Pours feeding into syringe until about one half full							

20

(continued)

Format adapted from Children's Hospital Chronic Illness Program, Ventilator Assisted Care Program. (1987). *Getting it started and keeping it going: A guide for respiratory home care of the ventilator assisted individual*. New Orleans, LA: Author; adapted by permission.
Children and Youth Assisted by Medical Technology in Educational Settings (2nd ed.) © 1997 Paul H. Brookes Publishing Co., Baltimore.

Skin-Level Gastrostomy Feeding— Bolus Method Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
8. Elevates the feeding above the level of the stomach Opens clamp Allows feeding to go in slowly, 20–30 minutes The higher the syringe is held, the faster the feeding will flow Lowers syringe if the feeding is going too fast							
9. Refills the syringe before it empties to prevent air from entering stomach							
10. Makes feeding like mealtime (young children may suck on a pacifier)							
11. Flushes the feeding device with ____ cc of water when feeding is complete							
12. After flushing, lowers the syringe below the stomach level to facilitate burping							
13. Removes the adaptor with feeding syringe and snaps safety plug in place							
14. Removes gloves, washes hands							
15. Washes syringe and tubing with soap and warm water, rinses and stores in clean area; stores formula as instructed							
16. Refers to student-specific guidelines regarding position and activity after feeding							
17. Documents feeding/medication, residual amount, and feeding tolerance							
18. Reports any changes to family							

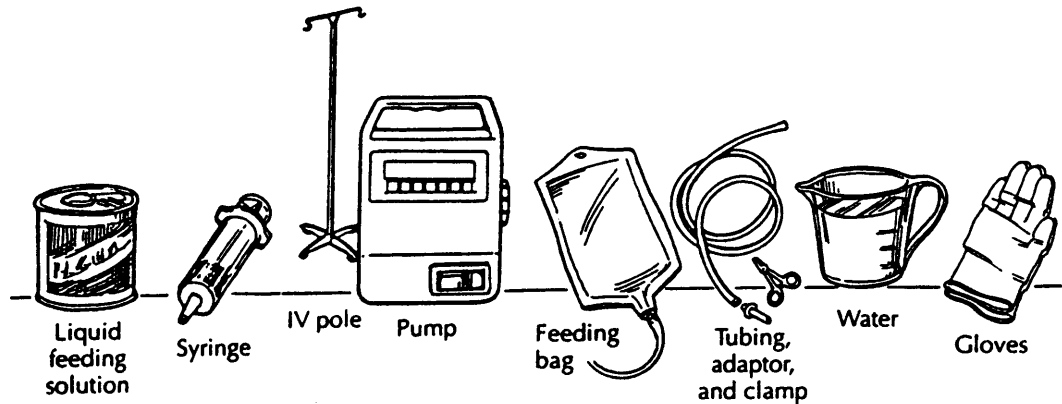
Checklist content approved by:

Parent/Guardian signature _____ Date _____

PROCEDURE FOR SKIN-LEVEL GASTROSTOMY DEVICE FEEDING— SLOW-DRIP METHOD/CONTINUOUS FEEDING BY PUMP

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 60-ml or -cc catheter-tipped syringe
 - Feeding pump and IV stand (optional)
 - Adaptor with tubing and clamp
 - Water (if prescribed)
 - Feeding bag
 - Gloves (optional)
3. Explain the procedure to the student at his or her level of understanding. Encourage the student to participate as much as possible.
 4. Position student.
 5. Wash hands. Put on gloves.
 6. Attach the adaptor to feeding bag tubing.
 7. Pour feeding/fluids into feeding bag and run feeding through bag and tubing to the tip. Clamp.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of gastrostomy device.
• *Some students get cramps if the feeding solution is too cold.*

The adaptor will vary with the size of the device.
Used to flush tubing after feeding.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

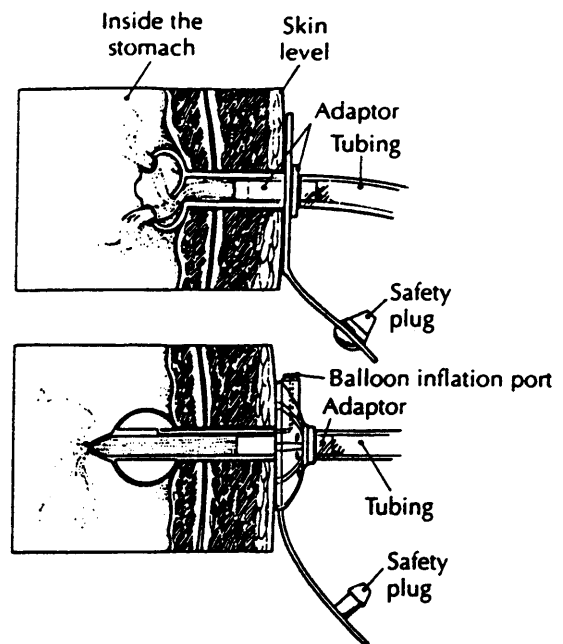
Student may be sitting or lying on right side with head elevated at a 30-degree angle.

If medication is prescribed, administer before feeding.

School activities may continue during feeding provided the student is sedentary.

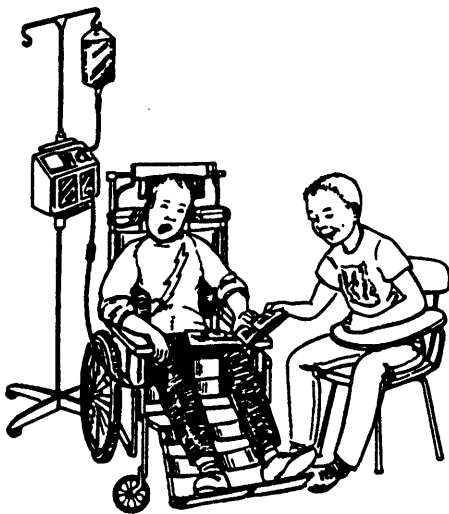
8. Hang bag on pole at height required to achieve prescribed flow. If a feeding pump is used, place tubing into pump mechanism and set for proper flow rate.

9. Open safety plug and insert tubing into device.



10. Open clamp of feeding bag tubing and adjust until drips flow at prescribed rate.

If feeding pump is used, open clamp completely. Check flow periodically and adjust if needed.



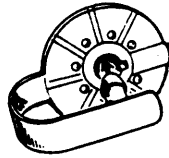
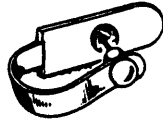
Be alert to any unusual changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, or diarrhea may indicate that the feeding is being given too quickly or formula is too cold.

11. For continuous feeding with pump, add more fluid to bag when empty.
12. When single feeding is completed (bag empty), clamp feeding bag tubing.
13. Flush device with water if ordered.
14. Remove adaptor and tubing from device.

Check rate and flow periodically and adjust if needed.

This clears the device of any feeding fluid. After flushing, lower the syringe below the stomach level to facilitate burping.

15. Close safety plug.



16. Remove gloves. Wash hands.

17. Refer to student-specific guidelines regarding position and activity after feeding.

18. Wash feeding bag, tubing, and syringe in soapy water. Rinse, dry, and store in a clean area.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic containers labeled correctly, (not the original can) in the refrigerator. Formula should be discarded after 48 hours.

19. Document feeding/medication, residual amount, and feeding tolerance on log sheet. 21

Report to family any change in the student's usual pattern.

Skin-Level Gastrostomy Feeding— Slow Drip or Continuous Method Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. _____ cc (amount) _____ Formula/feeding solution							
5. Feeding to be completed in _____ minutes							
6. Position for feeding _____							
7. Identifies where procedure is done and student's activity level							
8. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Gastrostomy device _____ (size and type)							
2. Gloves							
3. Feeding solution in container (bag) at room temperature							
4. 60-cc catheter-tipped syringe							
5. Pump and IV stand (if used)							
6. Adaptor with tubing and clamp							
7. Tap water							
8. Pole to hold feeding container							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains the procedure							
4. Washes hands, puts on gloves							
5. Attaches adaptor to tubing							
6. Pours feeding/fluids into feeding container, runs feeding through tubing to the tip, and clamps tubing							
7. Hangs container on pole at height required to deliver prescribed flow (if pump is used, places tubing into pump and sets flow rate)							

Skin-Level Gastrostomy Feeding— Slow Drip or Continuous Method Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
8. Opens safety plug and inserts tubing into the button							
9. Opens clamp on tubing and adjusts flow to prescribed rate (If pump is used, opens clamp completely)							
10. For a <i>continuous feeding</i> with a pump, adds more fluid to bag when empty							
11. Checks rate and flow periodically and adjusts if needed							
12. When <i>single feeding</i> is completed (bag empty), clamps feeding bag tubing and removes							
13. Makes feeding like mealtime: young children may suck on a pacifier							
14. Attaches catheter-tipped syringe and flushes adapter tubing and feeding device							
15. After flushing, lowers syringe below stomach level to facilitate burping							
16. Removes adaptor and tubing from feeding device and snaps safety plug in place							
17. Removes gloves, washes hands							
18. Refers to student-specific guidelines regarding position and activity after feeding							
19. Washes feeding bag and tubing with soap and warm water, rinses and stores in clean area, stores formula as instructed							
20. Documents feeding/medication, residual amount, and feeding tolerance							
21. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

Gastrostomy Tube Reinsertion

I. Purpose

Maintenance of the opening into the stomach is the reason for G-tube reinsertion.

This procedure is not routine for trained staff unless a situation is designated as requiring prompt medical attention to prevent closure of the ostomy. If the school nurse, physician, or lawful custodian is not available, only trained staff will provide ostomy patency and 911 should be called if ostomy patency is questionable. An anticipated health crisis plan should be developed.

II. Suggested Settings

A tube reinsertion should be done in the health office in an area that affords privacy for the student. The health room is also a central storage area for equipment and supplies used to reinsert the G-tube.

III. Special Equipment

1. Foley catheter of appropriate size
2. Any water-soluble lubricant
3. Paper tape
4. Gauze 3 by 3 inch (8 by 8 cm) or stockinette
5. Clamp
6. Adaptor, if the catheter has an open inflation funnel
7. Paper towel
8. For inflation of catheter balloon, include:
 - a. *A syringe to inflate catheter balloon 5 to 10 cc, as ordered by the physician*
 - b. *A needle (22 gauge and 1 inch)*
 - c. *Water or saline solution*

IV. Suggested Personnel and Training

A health care assessment needs to be completed by the school nurse. State nurse practice regulations must be consulted for guidance on delegating health care procedures.

The gastrostomy tube reinsertion should be performed by the registered nurse or by a designated, un-licensed staff member only after appropriately trained with skills demonstrated. A skills checklist is included at the end of this section and outlines the step-by-step procedure. This form also serves as documentation of training for un-licensed school personnel.

After trained staff have reinserted the tube, verification of correct placement is the responsibility of the nurse or lawful custodian. The lawful custodian will provide necessary equipment for performing the procedure at school.

V. Individualized Health Care Plan: Issues for Special Consideration

Purchasing/providing the gastrostomy tube is the responsibility of the lawful custodian. The tube should be held in place with a stockinette dressing or something similar to prevent the tube from catching on objects.

- Latex allergy alert
- Universal precautions

VI. Possible Problems

Prompt reinsertion of the tube is recommended after it has been dislodged, so that the ostomy remains open. Delay of reinsertion may cause the ostomy to constrict, a condition which may require surgical intervention or cause painful reinsertion.

If reinsertion is a problem, the student should be transported immediately to a physician's office or hospital emergency room.

Gastrostomy Tube Reinsertion (Never Delegate)

Procedure	Points to Remember
1. Wash hands.	<i>This is a clean, not a sterile, procedure.</i>
2. Explain the procedure, as appropriate.	
3. Put on gloves.	
4. Squeeze a small amount of water soluble lubricant on a paper towel.	<i>Insertion may be easier if the catheter is lubricated. Be aware of latex allergies.</i>
5. Remove the catheter from its sterile package, being careful not to touch the tip.	
6. Withdraw the correct amount (5 to 10 cc or 30 cc) of water or saline with the needle and syringe.	<i>To dispose of a needle, place it in an appropriate sharps container and dispose of the container appropriately when it is full.</i>
7. Lubricate the catheter by rotating it in lubricant on a paper towel; then insert it slowly and gently into the stoma, a distance of 2 to 2 1/2 inches (5 to 6 cm).	<i>If any resistance is felt, stop the procedure. Do not force the tube in; cover the area with sterile gauze and tape the gauze in place. The student will need to see a physician as soon as possible.</i>
8. Inflate the catheter balloon by injecting water or saline according to the size of the bag (5 to 10 cc or 30 cc). Use these steps with the following types of catheters.	
a. Plug type: Use a syringe with a needle.	
b. Valve type: Use Luer-Lok syringe. Do not use a needle.	
c. Open inflation funnel: Use a syringe with an adaptor and clamp. Do not use a needle.	
9. Pull gently on the catheter until resistance is met. This technique secures the balloon to the stoma site for proper placement.	

10. Mark the catheter with a non-toxic permanent marking pen approximately 1 inch (2.54 cm) above the stoma with a circle around the tube. This mark provides a placement landmark to ensure that the catheter does not move into the lower stomach and small intestine during peristalsis.
11. Close the end of the tube with one of the following:
 - a. Use a plastic catheter plug.
 - b. Fold tubing and wrap a rubber band securely around the tube.
 - c. Place a C-clamp on the tube and tighten it.
12. The tube may be secured with tape or stretch netting, depending on each student's need. *A tube that is providing patency only must be taped securely in place to prevent dislodging.*
13. Remove gloves and wash hands.
14. Notify the lawful custodian and document the entire incident.
15. Record the procedure on the student health record.

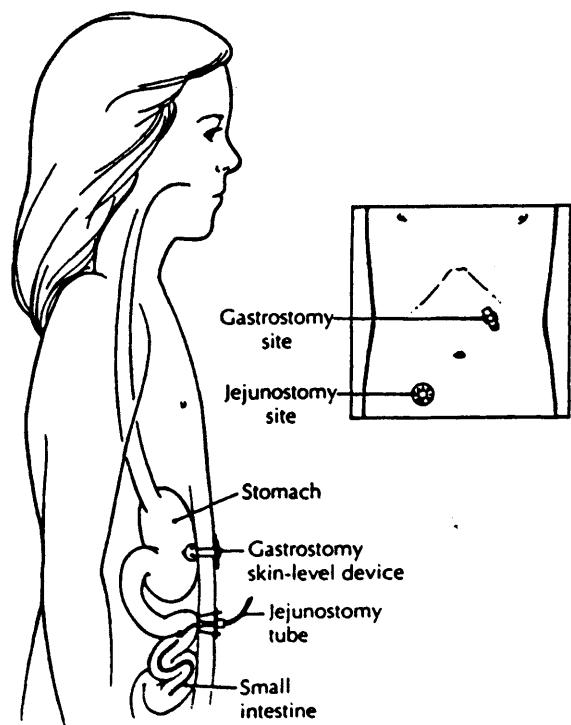
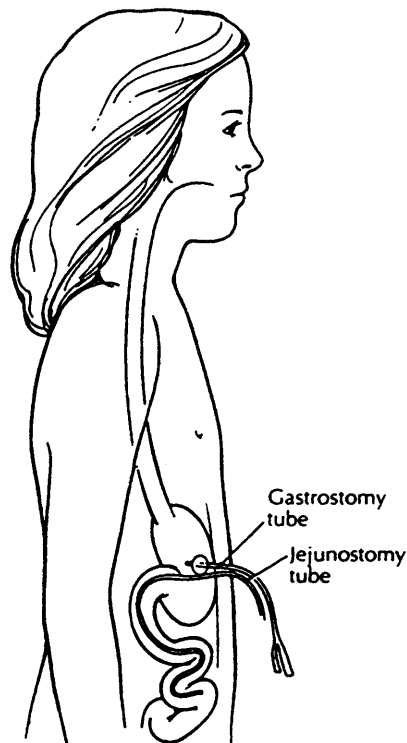
JEJUNOSTOMY TUBE

PURPOSE

A jejunostomy is a surgical opening into the jejunum (i.e., the small intestine between the duodenum and the ileum) through the surface of the abdomen. The jejunostomy tube (J-tube) is a flexible, rubber or latex catheter that is held in place on the abdominal wall with tape or is fed through the gastrostomy site through the intestine down to the jejunum and taped to the G-tube. The tube remains in the small intestine at all times and must not move in or out. The J-tube causes no discomfort when in place.

The jejunostomy tube may be used to administer food and fluids directly into the jejunum. This method is used to bypass the usual route of feeding by mouth and stomach when

- There is blockage in the upper esophagus and/or stomach.
- The student is at risk for aspiration and gastroesophageal reflux.
- The student has difficulty taking enough food by mouth or gastrostomy feedings to maintain adequate nutrition.
- The student has intestinal pseudo-obstruction or short bowel syndrome.
- The student has had major stomach surgery or a problem with stomach emptying.
- The student has a depressed gag reflex.



A student receives jejunal feeding by continuous drip method slowly over a number of hours. The continuous drip method is preferred over the bolus method to prevent giving a large volume of feeding over a short period of time.

In addition to J-tubes, gastrostomy skin-level feeding devices and nasojejunal tubes also are placed surgically to provide direct jejunal feeding.

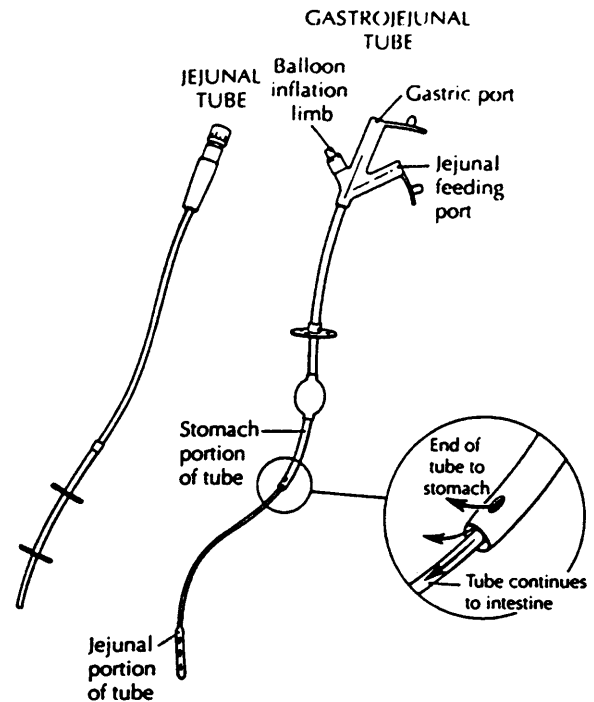
Factors affecting selection of these devices are the student's age, the size of the device, and whether the student is allergic to the material of the device. Some students may have a G-tube and a J-tube in the same stoma. There may be two distinctly separate tubes or one tube with several identified ports. Some students may have a gastrostomy device and a jejunostomy device and will have two distinct abdominal

stoma sites. In most cases, the gastrostomy device will be vented for comfort, and in many situations, the venting is continuous.

The gastrojejun tube is a single tube with three limbs, including

- A jejunal feeding port (i.e., the opening of the tubing into the jejunum)
- A gastric port (i.e., the opening of the tubing into the stomach)
- A balloon inflation limb (holds the tube in place)

There is one abdominal stoma (gastrostomy), and the device passes through the gastrostomy and stomach and into the jejunum. Other students may have an NG-tube or other small tube inserted through the gastrostomy stoma alongside the G-tube and into the jejunum.



SUGGESTED SETTINGS

There are no restrictions as to where a student may be fed. The student may be fed with other students, or, if the student prefers, in a more private setting (e.g., health room). Some students receive feedings every 2–3 hours. These students may have their feedings administered in the classroom. They may need to remain stationary and should be able to continue sedentary school activities (e.g., reading, doing art, singing, working on a computer, learning social studies). Some students do not require feedings during school hours.

For students whose gastrostomy tubes require venting or draining, the procedures should be done in the health room or another private area. These procedures may be done after each feeding or according to physician's orders. Some children may have the gastrostomy tube vented continuously to a small drainage bag.

J-tubes usually are covered by clothing. Students with J-tubes should be able to participate in all school activities, but participation in physical education should be determined on an individual basis (especially for those with J-tubes taped to G-tubes).

SUGGESTED PERSONNEL AND TRAINING

A health assessment must be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

A jejunostomy feeding may be administered by the school nurse, parent, teacher, student's aide, or other staff person with proven competency-based training in appropriate techniques and problem management. The student should be encouraged to assist with the J-tube feeding as much as possible.

School personnel with regular contact with a student who has a J-tube should receive general training that covers the student's specific health care needs, potential problems, and how to implement an established emergency plan.

The basic skills checklist included on pages 67-68 can be used as a foundation for competency-based training in appropriate techniques. It outlines specific procedures step by step. Once the procedures have been mastered, the completed checklist serves as documentation of training.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's IHCP must be tailored to the individual's needs. The following section covers the procedure for J-tube care and possible problems and emergencies that may arise. It is essential to review it before writing the IHCP.

A sample plan is included in this manual. It may be copied and used to develop a plan for each student. For a student with a J-tube, the following items should receive particular attention:

- Type of feeding the student is receiving
- Activity level after feeding
- Positioning during and after feeding
- Determining the need for venting G-tube during jejunostomy feeding (or continuously)
- Students who experience moderate to severe gastroesophageal reflux may need to receive their medications (except antacids) through the J-tube (only if specified in physician's orders in advance)
- Patency of jejunostomy tract and time frame for reinsertion should the tube fall out or come out of position (If medications are given through the J-tube, it is imperative to flush the tube before and after medication administration in order to maintain patency of the tube.)
- Awareness of typical problems with feeding (e.g., vomiting, abdominal distension, diarrhea)
- Awareness of amount of oral intake allowed
- Adherence to feeding schedule to prevent overfeeding or dumping syndrome symptoms
- Type of equipment used by student
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)

Possible Problems that Require Immediate Attention

Observation	Reason/Action
Color changes/breathing difficulty	<i>Some students may have increased upper airway secretions with feedings and may need suctioning. Stop feeding and follow student-specific instructions for suctioning.</i>
Sweaty skin, pale skin color, increased heart rate, irritability, diarrhea	<i>Signs of dumping syndrome. This can occur when caloric intake and/or volume of feeding are increased. If this is a new occurrence, stop the feeding until symptoms subside. Notify family of these symptoms. Follow student-specific guidelines.</i>
Nausea and/or cramping	<p><i>Check rate of feeding—rate may need to be decreased.</i></p> <p><i>Check temperature of feeding—feeding may be too cold: Stop feeding, let feeding get to room temperature, then administer. If problem continues, notify school nurse, doctor, and family.</i></p>
Vomiting	<p><i>Jejunostomy tube may be dislodged from jejunum. Stop feeding; notify school nurse, doctor, and family.</i></p> <p><i>The jejunostomy tube may not be in the proper position. If all of the above have been checked, stop feeding; call school nurse, doctor, and family.</i></p> <p><i>May need to vent G-tube if it was clamped during jejunal feeding.</i></p>
May see jejunal feeding contents in G-tube drainage	<i>J-tube may be dislodged from jejunum. Stop feeding, notify school nurse, doctor, and family.</i>
Blocked jejunostomy tubing	<i>May be due to inadequate flushing or very thick fluid. Squeeze or roll tubing with fingers, moving slowly down toward student's stomach. Try a 3-cc syringe filled with warm water held high to facilitate movement of fluid. If blockage remains, do not apply force. Contact school nurse and family.</i>
Bleeding/drainage	<i>Make sure tubing is not being pulled. Check the J-tube site for leakage.</i>
J-tube falls out	<p><i>In some students, whose tracts may close quickly, the J-tube may need to be reinserted within 1–2 hours.</i></p> <p><i>Cover the site with dry dressing or large bandage. Notify the family.</i></p>

General Information Sheet

Students with Jejunostomy Tubes

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires a jejunostomy tube (J-tube). This is a simple and safe way of giving food, medicines, and fluids directly into the intestine because the student is unable to use his or her stomach.

The jejunostomy is a surgical opening into the jejunum (part of the small intestine). A flexible rubber tube (i.e., J-tube) is put into the surgical opening. It is held in place on the outside at all times. The tube is clamped or capped between feedings to prevent leakage. The J-tube usually does not cause the student discomfort and is covered by clothing.

The student may receive feedings or medication through the J-tube as needed during the schoolday in the classroom, the lunchroom, or the health office. Unless he or she has a condition that otherwise would interfere with participation in physical education or other activities, there is no reason why he or she cannot participate fully. Special consideration may be needed, however, for field trips or other activities during which the student may not be able to receive a regularly scheduled feeding.

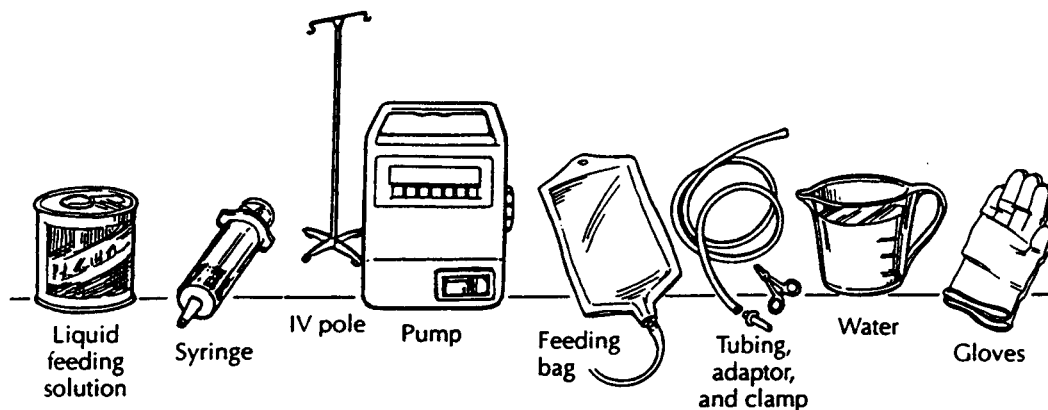
The following staff members have been trained to deal with any problems that may arise with this student:

For more information about J-tubes or the student's needs, consult the school nurse or family.

PROCEDURE FOR JEJUNOSTOMY FEEDING— CONTINUOUS FEEDING BY PUMP

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Liquid feeding solution/formula at room temperature
 - 10-ml or -cc syringe
 - Feeding pump (optional)
 - IV stand (optional)
 - Clamp or cap for end of tube
 - Water (if prescribed)
 - Feeding bag
 - Safety pins
 - Gloves (optional)
3. Explain the procedure to the student at his or her level of understanding. Encourage the student to participate as much as possible.
 4. Position student.
 5. Wash hands. Put on gloves.
 6. Pour feeding/fluids into feeding bag and run feeding through bag and tubing to the tip. Clamp.
 7. Hang bag on pole at height required to achieve prescribed flow. Place tubing into feeding pump mechanism and set for proper flow rate.
 8. Insert tip of feeding bag tubing into jejunostomy tube and tape securely. Unclamp J-tube.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

Identify size and type of J-tube. Some students get cramps if the feeding solution is too cold.

Used to flush tubing after feeding.

Used to secure J-tube to clothing.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

Student may be sitting or lying on right side with head elevated at a 30-degree angle. When positioning the student, make sure clamp is not pressing on skin. Tubing may be pinned to shirt. Remember to unpin J-tube before proceeding with feeding.

If medication is prescribed, administer before or after feeding according to student-specific guidelines and flush tubing well before starting feeding.

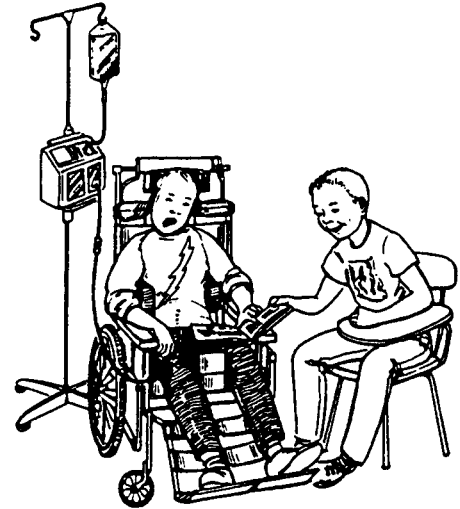
School activities may continue during feeding provided the student is sedentary.

Do not apply undue traction on jejunostomy tubing.

9. Vent G-tube or skin-level feeding device if indicated during feeding.
10. Set flow rate on pump.
11. Add more fluid to bag before it is completely empty.

May need syringe or drainage bag for venting.

Check pump periodically for proper infusion rate.



12. If feeding is completed during school time, then clamp feeding bag tubing and clamp J-tube.
13. Disconnect feeding bag from J-tube.
14. Unclamp J-tube and flush with water using a syringe.
15. Clamp and cap J-tube.
16. Apply dressing, if needed, using universal precautions (see Chapter 5).
17. Make sure tubing is secure and tucked inside clothing. Tubing may be pinned to shirt.
18. Wash feeding bag, tubing, and syringe in tap water and store in a clean area.
19. Remove gloves.
20. Wash hands.
21. Refer to student-specific guidelines regarding activity after feeding.
22. Document feeding/medication and feeding tolerance on log sheet.

Be alert to any changes in the student's tolerance of the feeding. Nausea/vomiting, cramping, pale skin color, sweating, irritability, or diarrhea may indicate that the feeding is being given too quickly or formula is too cold.

Amount of water used for flush may vary according to student-specific recommendations. This clears the tubing of any feeding fluid.

Remember to unpin tube before removing shirt. The feeding may be disconnected while the student is being transported to and from the school program.

Most open formula is good for 48 hours. The exceptions are some elemental formulas that are good for only 24 hours. Open formula should be stored in clean plastic containers (not the original can), labeled correctly, in the refrigerator. Formula should be discarded after 48 hours.

Report to family any change in the student's usual pattern. 23

Jejunostomy Feeding— Continuous Method Feeding by Pump Skills Checklist

Student's name: _____

Person trained: _____

Position: _____

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Determines student's ability to participate in procedure							
2. Reviews universal precautions							
3. Position for feeding _____							
4. Identifies where procedure is done and student's activity level							
5. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. J-tube _____ (size) _____ (type)							
a. Small port plug							
b. Feeding port							
2. Clamp and plug/cap							
3. Gloves (optional)							
4. Feeding solution at room temperature							
5. 10-cc syringe							
6. Feeding container and tubing							
7. Pump							
8. Tap water							
9. Pole to hold feeding container							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains procedure							
4. Washes hands, puts on gloves							
<i>Student-Specific (Steps 5–10 need to be individualized for each student.)</i>							
5. Checks for proper placement of tube							
6. Pours feeding/fluids into feeding container, runs feeding through tubing to the tip, and clamps tubing							
7. Hangs container on pole at height required to deliver prescribed flow							
8. Vents G-tube or skin-level feeding device if indicated during feeding							

Jejunostomy Feeding— Continuous Method Feeding by Pump Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
9. Inserts tip of feeding bag tubing into J-tube							
10. Opens clamp on tubing completely and sets rate on pump							
11. For a <i>continuous feeding</i> with a pump, adds more fluid to container before completely empty							
12. Checks rate periodically for proper infusion rate							
13. If <i>single feeding</i> is completed during school time, clamps tubing and J-tube and disconnects from J-tube							
14. Flushes J-tube with _____ cc water							
15. Clamps or caps J-tube and secures tubing, applies dressing as needed							
16. Cleans and stores feeding container, tubing, and syringe; stores formula as instructed							
17. Washes hands							
18. Documents feeding and observations							
19. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

ILEOSTOMY

PURPOSE

An ileostomy is a surgical opening in the small intestine that is used to drain feces if the colon has been removed or is unable to be used due to disease, injury, or blockage. The end of the ileum is brought out to the surface of the abdomen and is stitched in place after it has been folded back onto itself to create the stoma.

The stoma may seem to protrude like a nipple, unlike the flatter stoma in a colostomy. This is because the fecal matter from ileostomies is very irritating to the surrounding skin, and the nipple helps to direct drainage into the ostomy bag. Because food is not completely digested without the colon, discharge from the ileostomy stoma is usually pasty but may be watery. Discharge will be fairly constant with more after meals and a little less during the night. Foods that are difficult to digest, such as tomato skins and corn, will be passed from the ileostomy looking very much the same as when eaten. Students with ileostomies must be careful about what they eat so the ileostomy does not become blocked.

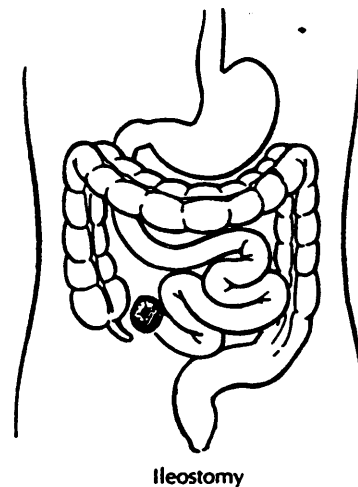
Another type of ileostomy, now used for some students, is the *continent ileostomy*. In this type of ileostomy, a surgeon makes an internal pouch from the end of the ileum under the skin. A valve is also made from the end of the intestine, which keeps most gas and the stool inside the pouch until it is emptied. The internal pouch is emptied four to six times a day by putting a tube (i.e., catheter) through the stoma to open the valve and drain the contents. Students with a continent ileostomy will still have a stoma, but their stoma care is usually simpler than is that needed for the other type of ileostomy.

STOMA CARE

The goal of stoma care is to keep the skin and stoma clean and healthy. Good skin care is essential, because discharge from the ostomy can be irritating to the skin around the stoma. A properly fitting barrier should be applied around the stoma to protect the skin from any leakage.

SUGGESTED SETTINGS

The student or caregiver empties the pouch in a private place, such as a bathroom or the health room, and does stoma care when needed. The pouch should be emptied before it is full or if a leak occurs. The student should be able to participate in all school activities, including physical education.



SUGGESTED PERSONNEL AND TRAINING

A health assessment must be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

Stoma care can be done by the student, school nurse, or other adult with proven competency-based training in appropriate techniques and problem management. School personnel who have regular contact with a student with an ileostomy should receive general training that covers the student's specific health care needs, potential problems, and how to implement the established emergency plan.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's individualized health care plan must be tailored to the individual's needs. The following section covers the procedure for ileostomy care, as well as possible problems and emergencies that may arise. It is essential that these guidelines be reviewed before writing the IHCP.

A sample plan is included in this manual. It may be copied and used to develop a plan for each student. For a student with an ileostomy, the following items should receive particular attention:

- Student's ability for self-care (The student capable of self-care should have ready access to his or her equipment and a private bathroom with a sink.)
- Some students with ileostomies may require a modified diet
- Baseline status of the ileostomy (e.g., stool consistency, frequency)
- Access to change of clothes
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)

Possible Problems When Changing an Ileostomy Pouch

Observations	Reason/Action
Odor	<i>A properly cared for ileostomy should not have a persistent odor. If there is an odor, check for an improperly cleaned pouch or belt or a leak around the stoma or in the pouch itself.</i>
Leakage	<i>Check to see if the pouch is too full or has a leak. Other causes include inadequate or improper care, wrong pouch size for stoma, or change in amount of fecal drainage.</i>
Bleeding from stoma	<i>The stoma is irritated very easily. This may happen if it is rubbed too hard during cleaning or nicked with a fingernail. Usually the bleeding stops quickly. If it does not, apply gentle pressure and notify the family. If a large area of the stoma appears to be bleeding, notify the family, school nurse, or physician.</i>
Irritation/skin breakdown around stoma; skin is raw or weeping	<i>Usually this is caused by improper stoma care or an inadequate barrier on the skin. Fecal discharge from ileostomies is very irritating to the skin because of the presence of digestive juices in the fluid. Therefore, it is very important to have a proper seal and skin barrier. Also, check that the student is not using any new preparation that might be causing an allergic reaction. Contact the family, school nurse, or physician.</i>
Rash with small red spots	<i>Student may have a yeast infection. Clean and dry the skin carefully and notify the family.</i>
Change in stool pattern	<i>If the student either has more watery stools than usual or has not had any discharge from the ileostomy, notify the family. This may be due to diet changes or illness.</i>
Part of intestine showing through stoma	<i>If the amount of intestinal tissue showing is more than usual, the stoma may be prolapsing (i.e., intestine being pushed out through the opening). The tissue may appear swollen, and the student may experience cramping and vomiting. Contact the school nurse, family, and physician immediately.</i>

General Information Sheet

Students with Ileostomies

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires an ileostomy. This is an opening on the surface of the abdomen into the small intestine, which allows the body to eliminate stool because the student is unable to do so. The opening, or stoma, is covered by a pouch that serves as a container for waste until it can be emptied. The student or another person empties the pouch and cleans the stoma, when needed, in the bathroom.

Unless the student has a condition that otherwise would interfere with his or her participation in physical education or other activities, there is no reason that he or she cannot participate fully. It is very difficult for a stoma to be injured. It can be bumped, leaned on, or slept on without problems. The pouch is firmly attached and should not come off under normal circumstances. The student should be allowed easy access to private bathroom facilities.

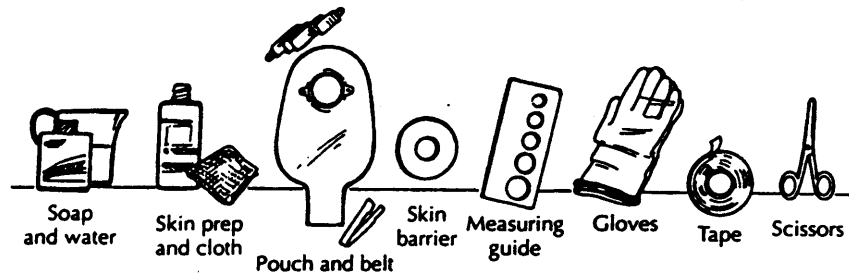
The following staff members have been trained to deal with any problems that may arise with this student:

For more information about ileostomies or the student's needs, consult the school nurse or family.

PROCEDURE FOR CHANGING AN ILEOSTOMY POUCH

PROCEDURE

1. Wash hands.
2. Assemble equipment:



- Water
 - Skin cleanser solution
 - Soft cloth or gauze
 - Clean pouch and belt, if needed
 - Skin barrier
 - Measuring guide, if needed
 - Disposable gloves, if pouch is to be changed by someone other than student
 - Tape, if needed
 - Scissors, if specified
 - Protective powder and paste, if used
3. Explain procedure at the student's level of understanding.
 4. Wash hands and put on gloves.
 5. Empty contents of used pouch into toilet.
 6. Carefully remove the used pouch and skin barrier by pushing the skin away from the pouch, instead of pulling the pouch off the skin.
 7. Wash the stoma with soap and water using clean cloth or gauze. Cover the stoma with gauze or cloth and clean the skin around the stoma.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

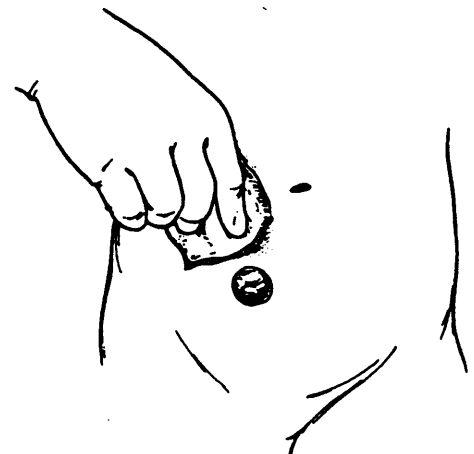
Each student should have a complete set-up at school with a spare pouch.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

Not necessary if student is doing procedure unassisted.

If a skin barrier that requires fitting is used, measure stoma.

Do not scrub the stoma or the skin.



8. Inspect the skin for redness, rash, or blistering.

9. Pat skin dry. Apply protective powder around stoma. Brush excess powder off skin.
10. Place skin barrier on skin around stoma.
11. Peel off backing from adhesive on pouch, and apply paste to pouch if necessary. Securely apply pouch closure to bottom of pouch.

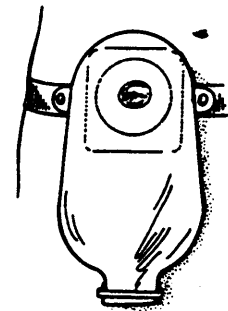
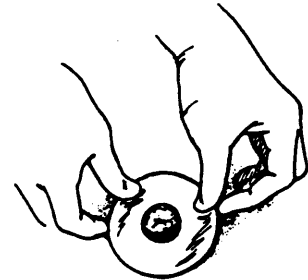
12. Remove gauze and dispose.
13. Center the new pouch directly over the stoma.



14. Firmly press the pouch to the skin barrier so there are no leaks or wrinkles.
15. Dispose of used pouch in appropriate receptacle.
16. Remove gloves and wash hands.
17. Document on log sheet that procedure was completed and note any significant changes.

25

If there is skin irritation, check student-specific guidelines. Do not put medication, ointment, or adhesive on the damaged skin. Report skin irritation to school nurse and/or family



If indicated, open the pouch to allow in a small amount of air. Then seal drain. Refer to universal precautions.

Report to the family any change in stool pattern or tolerance of the procedure.

Student's name: _____

Person trained: _____

Position: _____

Ileostomy Pouch Change Skills Checklist

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. Identifies where procedure is done (consider privacy and access to bathroom)							
5. Position for ostomy care: _____							
6. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Cleanser and water							
2. Soft cloth or gauze							
3. Clean pouch and belt, if needed							
4. Skin barrier							
5. Scissors and measuring guide							
6. Clean gloves							
7. Tape, if needed							
8. Protective powder and paste							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains procedure							
4. Washes hands, puts on gloves							
5. Empties contents of pouch into toilet before removal, if ordered							
6. Removes used pouch							
7. Washes the stoma area and places gauze over stoma							
8. Inspects skin for redness/irritation							
9. Dries stoma and skin, applies protective powder							
10. Places skin barrier around stoma							
11. Applies paste to pouch, removes backing from adhesive, removes gauze from stoma and disposes							
12. Applies pouch closure							

Ileostomy Pouch Change Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
13. Centers new pouch over stoma							
14. Presses pouch firmly against skin barrier to prevent leaks							
15. Disposes of used pouch in appropriate receptacle							
16. Removes gloves and washes hands							
17. Documents procedure and observations							
18. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

COLOSTOMY

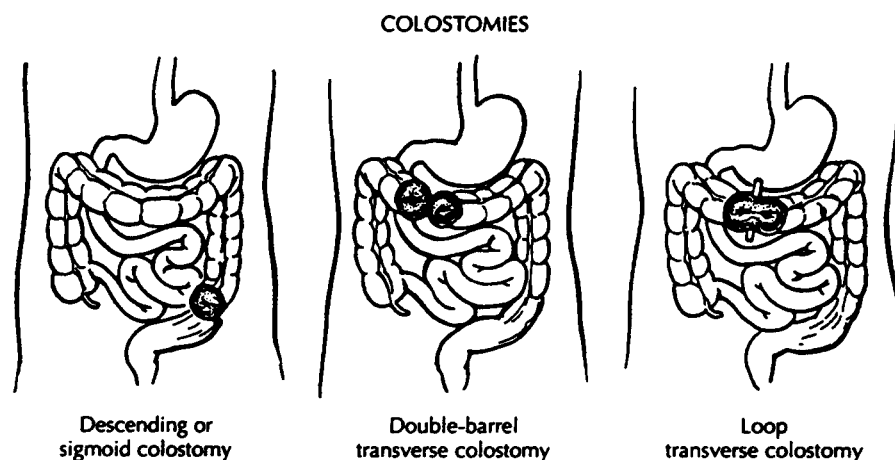
PURPOSE

A colostomy is a surgical opening in the large intestine that is used to drain stool when part of the colon does not function properly as a result of the following:

- Obstruction (blockage)
- Inflammation or infection
- Birth defects
- Accident or injury
- Abnormal motility

The end of the remaining part of the colon is brought out to the surface of the abdomen and stitched in place after it has been folded back onto itself to create the stoma. Depending on the reason for the colostomy, the anatomical location of the stoma may vary.

Some students have two stomas from either a loop colostomy or a double-barrel colostomy. In these cases, the last part of the colon may not function, or only part of the colon may have been removed. One of the stomas will function as the colostomy, where the stool comes out. The other opening, which is closer to the rectum, is a *mucus fistula*. No stool comes out of this stoma, only mucus, which the colon normally makes. Some students who have colostomies like this occasionally may pass mucus from their rectum when they sit on the toilet. The ostomy is covered by a pouch that collects the stool.



STOMA CARE

The goal of stoma care is to keep the skin and stoma clean and healthy. Good skin care is essential because discharge from the ostomy can be irritating to the skin around the stoma. A properly fitting barrier should be applied around the stoma to protect the skin from any leakage.

SUGGESTED SETTINGS

The student or caregiver empties the pouch in a private place (e.g., bathroom, health office), and stoma care is done when needed. The pouch should be emptied when it is one third to one half full or when a leak occurs. A student should be able to participate in all school activities, including physical education.

SUGGESTED PERSONNEL AND TRAINING

A health assessment must be completed by the school nurse. State nurse practice regulations should be consulted for guidance on delegating health care procedures.

Stoma care can be done by the student, school nurse, or other adult with proven competency-based training in appropriate techniques and problem management. School personnel who have regular contact with a student with a colostomy should receive general training that covers the student's specific health care needs, potential problems, and how to implement the established emergency plan.

THE INDIVIDUALIZED HEALTH CARE PLAN: ISSUES FOR SPECIAL CONSIDERATION

Each student's individualized health care plan must be tailored to individual needs. The following section covers the procedure for colostomy care and possible problems and emergencies that may arise. It is essential that this section be reviewed before writing the health care plan.

A sample health care plan is included in this manual. It may be copied and used to develop a plan for each student. For a student with a colostomy, the following items should receive particular attention:

- Student's ability for self-care (The student capable of self-care should have ready access to his or her equipment and a private bathroom with a sink.)
- Student's change of clothing in school
- Baseline status of the colostomy (e.g., stool consistency, frequency, stoma care)
- Latex allergy alert
- Universal precautions (Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.)

Possible Problems When Changing a Colostomy Pouch

Observations	Reason/Action
Odor	<i>A properly cared for colostomy should not have a persistent odor when the pouch is closed. If there is an odor, check for a leak around the stoma or in the pouch itself.</i>
Leakage	<i>Check to see if pouch is too full or has a leak. Other causes include inadequate or improper stoma care, improper pouch size for stoma, or a change in stool pattern (e.g., diarrhea).</i>
Bleeding from stoma	<i>The stoma is irritated very easily. This may happen if it is rubbed too roughly during cleaning or nicked with a fingernail. Usually the bleeding stops quickly. If it does not, apply gentle pressure and notify the family. If a large area of the stoma appears to be bleeding, notify the family, school nurse, or physician.</i>
Irritation/skin breakdown around stoma; skin is raw or weeping	<i>Usually this is due to improper stoma care, such as poor seal of the pouch or inadequate barrier on the skin. If the skin is just red, make sure that skin barrier is applied properly. Also, check that the student is not using any new barrier or adhesive preparation (possible allergic reaction). Contact the family, school nurse, or physician.</i>
A rash with small red spots	<i>Student may have a yeast infection. Clean and dry the skin carefully and notify the family.</i>
Change in stool pattern	<i>If the student is having either looser stools than before or much fewer, notify the family. This may be due to diet changes or illness.</i>
Part of intestine showing through stoma	<i>If the amount of intestinal tissue showing is more than usual, the stoma may be prolapsing (i.e., intestine being pushed out through the opening). The tissue may appear swollen, and the student may experience cramping and vomiting. Contact the school nurse, family, and physician immediately.</i>

General Information Sheet

Students with Colostomies

Dear (teacher, lunch aide, bus driver):

_____ [Student's name] has a condition that requires a colostomy. This is an opening on the surface of the abdomen into the large intestine, which allows the body to eliminate feces because the student is unable to do so. The opening, or stoma, is covered by a pouch that serves as a container for waste until it can be emptied. The student or another person empties the pouch and cleans the stoma in the bathroom when needed.

Unless the student has a condition that otherwise interferes with his or her participation in physical education or other activities, there is no reason why he or she cannot participate fully. It is very difficult for a stoma to be injured. It can be bumped, leaned on, or slept on without problems. The pouch is firmly attached and should not come off under normal circumstances. The student should be allowed easy access to private bathroom facilities.

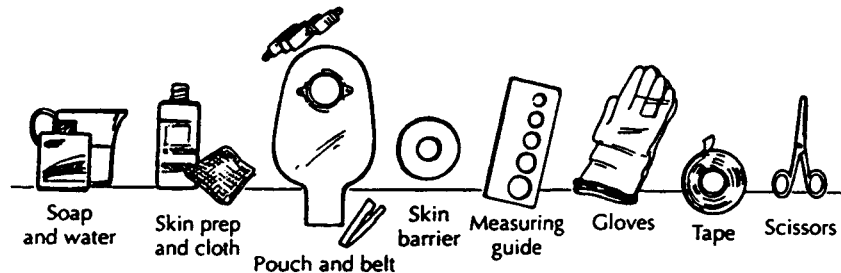
The following staff members have been trained to deal with any problems that may arise with this student:

For more information about colostomies or the student's needs, consult the school nurse or the family.

PROCEDURE FOR CHANGING A COLOSTOMY POUCH

PROCEDURE

1. Wash hands.
2. Assemble equipment:



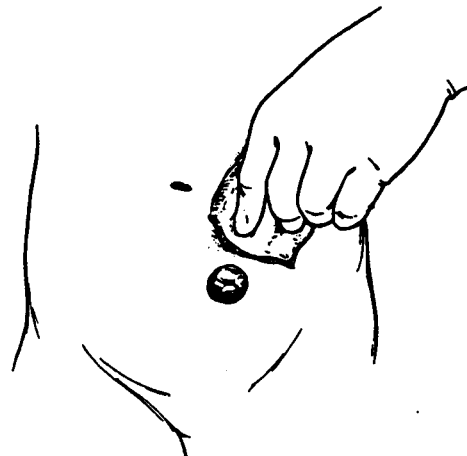
- Water
 - Skin cleanser solution
 - Soft cloth or gauze
 - Clean pouch and belt, if needed
 - Skin barrier
 - Measuring guide, if needed
 - Disposable gloves, if pouch is to be changed by someone other than student
 - Tape, if needed
 - Scissors, if specified
 - Protective powder and paste, if used
3. Explain procedure at the student's level of understanding.
 4. Wash hands and put on gloves.
 5. Empty contents of pouch student is wearing.
 6. Carefully remove the used pouch and skin barrier by pushing the skin away from the bag, instead of pulling the bag off the skin.
 7. Wash the stoma area using clean cloth or gauze. Do not scrub. Cover the stoma with gauze, then clean the skin around the stoma.

POINTS TO REMEMBER

Anticipating the tasks to be done, the risk involved, and the personal protective equipment needed will enhance protection of both the caregiver and student.

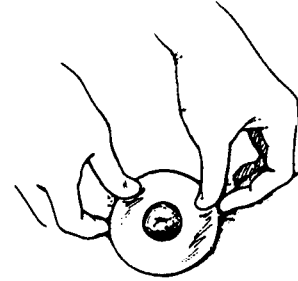
Each student should have a complete setup at school with a spare pouch and clip/pouch closure.

By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

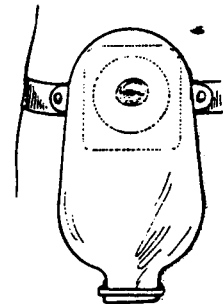
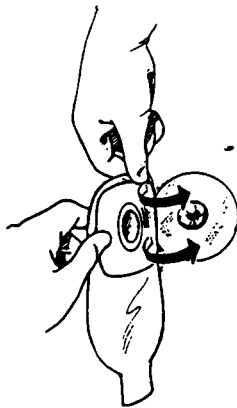


8. Inspect skin for redness, rash, bleeding, or blistering.
9. Pat stoma and skin dry. Apply protective powder around stoma. Brush excess powder off skin.
10. If a skin barrier is used that requires fitting, measure stoma per student-specific guidelines. Place skin barrier on skin around stoma.

If there is skin irritation, check student-specific guidelines. Do not put medication, ointment or adhesive on the damaged skin. Report skin irritation to school nurse and/or family. A small amount of pinpoint bleeding may normally occur.



11. Peel off backing from adhesive on pouch and apply paste to pouch, if needed. Securely apply pouch closure to bottom of pouch.
12. Remove used gauze and discard in appropriate receptacle.
13. Center the new pouch directly over the stoma.



14. Firmly press the pouch to the skin barrier so there are no wrinkles and no leaks.
15. Dispose of used pouch in appropriate receptacle.
16. Remove gloves and wash hands.
17. Document on log sheet that the procedure was done. 27

If indicated, open the pouch to allow in a small amount of air. Then seal the drain. If a belt is used to fasten pouch, attach to pouch.

*Rever to universal precautions.
Report to family any change in stool pattern, skin irritation, or tolerance of the procedure.*

Student's name: _____

Person trained: _____

Position: _____

Colostomy Pouch Change Skills Checklist

Instructor: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
A. States name and purpose of procedure							
B. Preparation:							
1. Identifies student's ability to participate in procedure							
2. Reviews universal precautions							
3. Completes at _____ time(s)							
4. Identifies where procedure is done (consider privacy and access to bathroom)							
5. Position for ostomy care: _____							
6. Identifies possible problems and appropriate actions							
C. Identifies supplies:							
1. Cleanser and water							
2. Skin preparation							
3. Soft cloth or gauze							
4. Clean pouch							
5. Belt, if needed							
6. Measuring guide							
7. Gloves							
8. Tape, if needed							
9. Protective powder and paste							
10. Scissors							
D. Procedure:							
1. Washes hands							
2. Assembles equipment							
3. Positions student and explains procedure							
4. Washes hands, puts on gloves							
5. Empties contents of pouch before removal, if ordered							
6. Removes used pouch and skin barrier							
7. Washes the stoma and skin area and disposes of gauze or cloth							
8. Inspects skin for redness/irritation							
9. Dries stoma and skin; applies protective powder							
10. Places skin barrier around stoma							

Colostomy Pouch Change Skills Checklist

Student's name: _____

Explanation/Return Demonstration	Expl./ Demo. Date	Explanation/Return Demonstration					
		Date	Date	Date	Date	Date	Date
11. Applies paste to pouch or removes backing from adhesive							
12. Applies pouch closure							
13. Centers new pouch over stoma							
14. Presses pouch firmly against skin barrier to prevent leaks							
15. Disposes of used pouch in appropriate receptacle							
16. Removes gloves and washes hands							
17. Documents procedure and observations							
18. Reports any changes to family							

Checklist content approved by:

Parent/Guardian signature _____ Date _____

Toileting Assistance

I. Purpose

Toileting assistance provides the support the student needs to void in such a way that the student maintains a maximal level of independence while staying clean and comfortable and without skin irritation.

Toileting assistance may include changing a diaper, assisting with the student voiding in a urinal or bedpan, or assisting with feminine hygiene.

II. Suggested Settings

Toileting assistance can be done in regular toilet facilities. If student needs to be lying down as with a diaper change, this may be done in the nurse's office or any other facility where the student is assured privacy. If recommended facilities are not private, appropriate adaptations (such as screens or doors) should be made.

III. Suggested Personnel and Training

Toileting assistance may be administered by the school nurse, lawful custodian, teacher aide, or other staff person who has general training in toileting assistance with the student. General training should cover the student's specific health care needs, potential problems, and how to obtain assistance should problems occur.

The basic skills checklist can be used as a foundation for competency-based training in appropriate techniques. The checklist outlines specific procedures. Once the procedures have been mastered, the completed checklist serves as documentation of training.

IV. Individualized Health Care Plan: Issues for Special Consideration

Each student's Individualized Health Care Plan must be tailored to the individual student's needs. The following section covers the procedure for toileting assistance and possible problems and emergencies that may arise. It is essential to review the procedure before writing the Individualized Health Care Plan.

A sample Individualized Health Care Plan and Anticipated Health Crisis Plan are found in Appendix A. These may be copied and used to develop a plan for each student. For a student who requires toileting assistance, the following items should receive particular attention:

- Type of toileting assistance the student requires.
- Fostering independence in performing the procedure, depending on the student's ability
- Method for the student to communicate his/her need for toileting assistance, depending on the student's ability to communicate.

- The student's baseline status (frequency, amount, and color of normal void, stool consistency, and skin condition).
- Latex allergy alert
- Universal precautions

Toileting Assistance

Procedure	Points to Remember
1. Wash hands.	
2. Explain the procedure to the student at his/her level of understanding. Encourage the student to participate as much as possible.	<i>By encouraging the student to assist in the procedure, the care-giver is helping the student achieve maximum self-care skills.</i>
3. Diapers or incontinent wear:	<i>Students who can not tolerate sitting usually use incontinent wear.</i>
a. Gather equipment: diapers, wet wipes, gloves, changing table, soap and water, plastic bag for soiled clothing etc., and covered receptacle with disposable plastic bags for soiled diapers.	
b. Put on gloves	<i>See Appendix B, Universal Precautions</i>
c. Place student on changing table.	<i>Do not leave student unattended.</i>
d. Remove soiled diapers and soiled clothing.	<i>Dispose of diapers properly in plastic lined trash can. Place soiled clothing in plastic bag that can be secured and sent home with the student.</i>
e. Cleanse perineum and buttocks	<i>Use wet wipes or soap and water; wipe front to back; use powder and ointments only when authorized and provided by lawful custodian.</i>
f. Apply clean diaper and put on clean clothes.	<i>Report any abnormal conditions to school health nurse and/or lawful custodian. Observe for: blood or streaks of blood on diaper, mucous or pus in the stool, watery or liquid stool, skin rashes, bruises or breaks in the skin.</i>
g. Clean changing table.	<i>Prevents cross contamination between students.</i>
h. Discard gloves and wash hands.	<i>Prevents cross contamination between students.</i>
4. Assistance with a bedpan, urinal, commode or seat, or toilet.	

- | | | |
|----|--|---|
| a. | Gather equipment: gloves, toilet paper, wet wipes or soap and water, bedpan, urinal, toilet chair or seat | <i>Commodes provide support for the back and side support. Toilet chairs are recommended for students with severe disabilities. Younger students may use a triangle or corner chair.</i> |
| b. | Familiarize self with student's abilities. | <i>Assist where needed. Student's safety must be constantly monitored.</i> |
| c. | When needed, transfer student appropriately and secure all belts snugly. | <i>Special care must be taken when transferring the student to and from the commode. Wheelchair and commode must be locked in place. Special precautions must be used if floor is wet. Check all belts before leaving student unattended.</i> |
| d. | Position urinal or place student on toilet or bedpan as needed. | <i>Allow for privacy as much as possible. DO NOT leave student unattended until safety is assured.</i> |
| e. | Remove student from urinal, bedpan, or toilet, and assist student with clean up as needed. Assist student in dressing as needed. | <i>Wipe front to back. Use wet wipes or soap and water as needed. Use powder and ointments only when authorized and provided by lawful custodian.</i> |
| f. | Empty contents from urinal or bedpan into toilet and flush toilet. | <i>Report any abnormal conditions to school health nurse and/or lawful custodian. Observe for: Blood or streaks of blood, mucous or pus in the stool, watery or liquid stool, skin rashes, bruises or breaks in the skin.</i> |
| g. | Rinse urinal or bedpan and dispose of water into toilet. | |
| h. | Discard gloves and wash hands, and assist student with washing his/her hands. | <i>Prevents cross contamination between students.</i> |
| i. | Transfer student back to classroom. | |

5. **Feminine Hygiene**

- a. Gather equipment; sanitary pad, gloves, wet wipes as needed, plastic bag.
- b. Familiarize self with student's abilities. *Assist student as needed.*
- c. Wash hands and put on gloves.
- d. Position student so that sanitary pad can be changed. *Provide for student's privacy.*
- e. Remove soiled pad and place in plastic bag. *See Appendix B, Universal Precautions.*
- f. Cleanse student's perineum. *Use wet wipes or soap and water; wipe front to back.*
- g. Apply clean sanitary pad.
- h. Discard gloves and wash hands.
- i. Assist student in dressing.²⁹

Bowel Training

I. Purpose

The purpose of bowel management is to promote optimal bowel functioning and regularity, including the prevention or management of diarrhea and constipation. Bowel care focuses not only on bowel training issues, but also on the areas of diet, exercise, medication, and skin care.

Each student has a unique pattern of bowel functioning, and the student with disability brings additional complications to the area of bowel control. These complications may include: locomotor impairment, which may include an inability to walk and recognize the urge to defecate; abnormal muscle tone, which interferes with normal gastrointestinal function or defecation, or inadequate innervation of the rectal sphincters; or the student may receive medications that change the consistency, color, and frequency of bowel movements.

Factors that contribute to optimal bowel functioning include a high fiber diet, adequate fluid intake, a regular daily schedule for elimination, an ongoing plan for toilet training (if applicable) an environment that is conducive to elimination, proper positioning for elimination, and regular physical activity or exercise.

II. Suggested Settings

A bowel management program may be started at home or initiated in school. It is important that wherever the training begins, the program be adaptable for both home and school. It is important that consistency be maintained at home and school.

When providing a place for the student to void, the staff should be aware of cultural differences on the circumstances under which elimination occurs. For example, the degree of privacy the student may require, the student's attitude toward odors and sounds of elimination and the methods used to promote elimination. The environment needs to be conducive to elimination and proper positioning for elimination.

III. Suggested Personnel and Training

A health care assessment needs to be completed by the school nurse. State nurse practice regulations must be consulted for guidance on delegating health care procedures.

Bowel management may be carried out by the school nurse, lawful custodian, teacher aide, or other staff person who has general training in bowel care of the student. General training should cover the student's specific health care needs, potential problems, and how to obtain assistance should problems occur.

The basic skills checklist can be used as a foundation for competency-based training in appropriate techniques. The checklist outlines specific procedures. Once the procedures have been mastered, the completed checklist serves as documentation of training.

IV. Individualized Health Care Plan: Issues for Special Consideration

Each student's Individualized Health Care Plan must be tailored to the individual student's needs. The following section covers the procedure for bowel management and possible problems and emergencies that may arise. It is essential to review the procedure before writing the Individualized Health Care Plan.

A sample Individualized Health Care Plan and Anticipated Health Crisis Plan are found in Appendix A. These may be copied and used to develop a plan for each student. For a student who requires bowel management, the following items should receive particular attention:

- the student's pattern of bowel functioning (usual time of defecation, and amount, color, and consistency of feces)
- degree of bowel control (type of ongoing toileting program, awareness of behaviors that indicate the need to defecate)
- cause of abnormal bowel movements (medications and food)
- how diarrhea and constipation are managed
- Latex allergy alert
- Universal precautions

V. Possible Problems that Require Immediate Attention

Observations

Constipation (characterized by a longer interval between bowel movements than is normal for the student, feces that is hard and not easily passed, or stools may be liquid because of a large mass of stool present in the rectum or colon which semi-liquid stools leak around).

Reason/Action

Notify lawful custodian of change in bowel functioning.
Treatment may include:
increasing fiber and fluid in the diet, following established bowel training program, ensuring adequate physical activity as tolerated, or medications (only as prescribed by a physician or nurse practitioner) such as suppositories, laxatives, or enemas.

Diarrhea (characterized by a noticeable increase in the number of stools, a watery consistency to the stool, greenish stools with a foul odor)

May be caused by an infection, food poisoning, diet, illness, or obstruction of the large intestine by a large fecal mass.

Notify lawful custodian of change in bowel functioning.

For first 24 hours, give clear liquids (flat and undiluted gingerale, apple juice, 7-up, Gatorade, etc.). The next 24 hours, foods such as rice, rice cereals, bananas, or potatoes may be given. Avoid milk and milk products until diarrhea begins to resolve

Check for signs of dehydration:

crying without tears, dry skin, cracked lips, concentrated urine, decrease in the frequency of urination, weakness, sluggishness, and irritability.

Provide student with larger amounts of fluid at less frequent intervals. (If fluids are not replaced, the student may need intravenous therapy.)

Diarrhea does not improve after 24 hours, a fever develops, the student refuses fluids, the student can not keep fluids down, the student does not urinate, or the stool contains blood.

Consider notifying the physician.

Diarrhea can continue until the student is moderately to severely dehydrated. If fluid loss continues, the student can go into shock.

Shock (characterized by rapid and weak pulse, decreased blood pressure, sweaty skin that is ashen gray in color, decrease in urination, and change in level of responsiveness).

When shock is suspected:

Place student flat on floor with head lower than feet. Initiate emergency plan.

Seizures

Severe diarrhea can result in a disturbance in the body's sodium level, which can cause seizures.

Bowel Management

Procedure	Points to Remember
1. Review the individualized bowel management program for the student.	It is essential that the program be individualized for the student.
2. Explain the procedure to the student at his/her level of understanding. Encourage the student to participate as much as possible.	By encouraging the student to assist in the procedure, the care-giver is helping the student achieve maximum self-care skills.
3. Encourage the student to eat a high fiber diet. Bran cereal or unprocessed wheat bran may be added to foods.	High fiber diets increases the bulk of the feces, which stimulates the reflex to defecate. Fiber absorbs water in the stool for easier passage and shortened transit time through the bowel.
4. Encourage adequate fluid intake.	Most students need 1 to 2 quarts of fluid per day. Prune juice is a natural laxative. If the student has difficulty drinking liquids, a thickening agent such as infant cereal, blended fruit, or gelatin may be added. Some foods (e.g., popsicles, applesauce, fruits) have a higher fluid content.
5. Encourage physical activity and exercise.	Physical activity helps move the feces through the large intestine, therefore facilitating normal bowel patterns.
6. Promote the student's normal schedule of elimination. This may include placement of the student on the toilet after meals to take advantage of the gastrocolic reflex.	Bowel management programs vary greatly among students. Each toileting program is individualized for the student. References for bowel management programs are provided in Appendix B. It is important that all programs be individualized and consistent between home and school.
7. Wash hands before and after bowel care.	Prevents bacteria from spreading to other students or staff.
8. Provide an environment that is conducive to elimination.	Provide for privacy and fewer distractions by allowing the student to use a bathroom stall, setting up a partition in the bathroom, or using a bathroom away from the classroom.
9. Assist student in proper positioning on the toilet or commode.	A squatting position is best. An adaptive toilet seat or commode may be used to assist with balance and trunk control. Consult with lawful custodian to determine method which they have found most successful.

- | | | |
|-----|--|--|
| 10. | Put on gloves. | Gloves should be used if there is any potential contact with feces or body fluids. |
| 11. | Assist student with individualized methods to facilitate defecation. | <p>Examples include:</p> <p>coughing, pressing on the abdomen, blowing bubbles or blowing up a balloon while leaning over in order to push down, or digital stimulation. (Digital stimulation should only be performed with a <u>physician's order</u> and <u>after training</u> by a school health nurse, physician, or other qualified person.) It should be noted that digital stimulation is <u>usually done at home</u> and is only performed at school if necessary for the student to attend school.</p> |
| 12. | Assist student with toileting hygiene as needed. | |
| 13. | Remove and discard gloves. | See Appendix B, Universal Precautions. |
| 14. | Wash hands. | To prevent cross contamination. |
| 15. | If student does not have control over elimination of feces, check student frequently depending on usual pattern of elimination. | After each bowel movement clean the skin with soap and water. Apply ointment and creams only as requested by lawful custodian or ordered by the physician. |
| 16. | Document bowel movements and response to bowel training program on log. | |
| 17. | Communicate with lawful custodian and/or the student's physician about any deviation from the student's normal pattern of bowel functioning. Also communicate what activities or methods the staff has noted to promote or hinder bowel functioning. ³⁰ | Any change in usual bowel movements, such as diarrhea or constipation, should be reported to the student's lawful custodian and/or physician. See possible problems that require immediate attention. |

NOTES

1. Information appearing in this section has been reprinted by permission from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S. (1997). *Children and youth assisted by medical technology in educational settings: Guidelines for care*. (2nd ed). Baltimore: Paul H. Brookes Publishing Co. All rights reserved. (Please refer to individual notes throughout the section for details concerning specific passages of text).

2. Ibid. (p. 145). Page 1 of this section.

3. Information on pages 2-3 in this section has been adapted from:

American Dental Association. (1984). *Cleaning your teeth and gums*. Chicago: Bureau of Health and Education and Audiovisual Services.

Keen, T. P., et. al. (1996). *Guidelines for specialized health care procedures*. Virginia Department of Health. Richmond.

Graff, C., Ault, M., Guess, D., Taylor, M., and Thompson, B. (1990). "Teeth and gum care." *Healthcare for students with disabilities*. (pp. 15-28). Baltimore: Paul H. Brookes Publishing Company.

4. Information on pages 4-9 in this section adapted from:

Keen, Tammy P., et. al. (pp.VI/8-VI/13).

Graff, C, Ault, M., Guess, D, Taylor, M, and Thompson, B. (p. 130).

5. Information on pages 10-14 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp.166-168 & 173-174).

6. Information on pages 15-17 of this section adapted from:

Keen, T. P., et. al. (pp. VI/14-VI/18).

7. Information on pages 18-19 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S. (pp. 169-170)

8. Information on pages 20-21 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program, Ventilator Assisted Care Program. (1987).

Getting it started and keeping it going: A guide for respiratory home care of the ventilator assisted individual. New Orleans, LA.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S. (pp. 328-329).

9. Information on pages 22-23 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S (pp. 171-172).

10. Information on pages 24-26 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program, Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S (pp. 330-332).

11. Information on pages 27-28 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S (pp. 146-147).

12. Ibid. (pp. 154-155). Pages 29-30 of this section.

13. Ibid. (pp. 148-150). Pages 31-33 of this section.

14. Information on pages 34-35 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program, Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S (pp. 319-320).

15. Information on pages 36-38 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 151-153).

16. Information on pages 39-41 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program. Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S. (pp. 321-323).

17. Information on pages 42-43 of this section adapted or reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 156-157).

18. Ibid. (pp. 164-165). Pages 44-45 of this section.

19. Ibid. (pp. 158-160). Pages 46-48 of this section.

20. Information on pages 49-50 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program. Ventilator Assisted Care Program.
Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J. S. (pp. 324-325).

21. Information on pages 51-53 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 161-163).

22. Information on pages 54-55 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program. Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp.326-327).

23. Information on pages 60-66 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp.175-181).

24. Information on pages 67-68 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 333-334).

25. Information on pages 69-74 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 239-244).

26. Information on pages 75-76 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 345-346).

27. Information on pages 77-82 of this section reprinted from:

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 233-238).

28. Information on pages 83-84 of this section adapted or reprinted from:

Children's Hospital Chronic Illness Program Ventilator Assisted Care Program.

Porter, S., Haynie, M., Bierle, T., Caldwell, T.H., & Palfrey, J.S. (pp. 343-344).

29. Information on pages 85-89 of this section adapted from:

Keen, T. P., et. al. (pp. VI/79-VI/83).

Graff, C , Ault, M, Guess, D, Taylor, M, and Thompson, B. "Therapeutic management." (pp. 119-147).

30. Information on pages 90-94 of this section adapted from:

Keen, T. P., et. al. (VI/85-VI/90).

Graff, C, Ault, M, Guess, D, Taylor, M, and Thompson, B. "Bowel care." (pp. 59-77).